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## ITINERARY

Visitors whose time is brief are advised to see the Library, the Chapel, the Avery Library, the Hall of Philosophy, Kent Hall, Schermerhorn Hall, and the Gymnasium.

Visitors whose time will permit a fuller examination are advised to see first South Field, beginning with Hamilton Hall. Then they may cross to the Library, after which they had better make the circuit of the Quadrangle, beginning with Kent Hall, and ending with the Gymnasium. They can leave by the North Gate on 120th Street and go to Teachers College, taking Barnard College on their way back to the subway station at Broadway and 116th Street.

## HOW TO REACH THE UNIVERSITY

By Broadway trains on Subway to One Hundred and Sixteenth Street.


By Fifth Avenue stages to One Hundred and Sixteenth Street.

By trolley cars on Broadway or Amsterdam Avenue to One Hundred and Sixteenth Street.

## MAPS

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Map of University Grounds and Buildings, page 1.



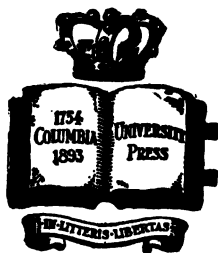
from photographs by Ambrose Fowler.





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# AN OFFICIAL GUIDE TO COLUMBIA UNIVERSITY



NEW YORK  
COLUMBIA UNIVERSITY PRESS  
LEMCKE AND BUECHNER, AGENTS

1912

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## INTRODUCTION

THIS little book has been prepared by members of the University. It is their wish to put into the hands of the new-comer and of the passer-by some account of the buildings, collections, memorials, and art treasures of Columbia in order that these may be intelligently visited and usefully studied.

A university with a long record of distinguished scholarship and service such as Columbia enjoys has accumulated much and many things that are easily overlooked or forgotten unless attention is called to them. These accumulations, these memorials, these evidences of lives of service and of devotion constitute one of the chief glories of any university.

It is hoped that this volume will make a visit to Columbia both interesting and profitable, and that it will serve to guide not only the feet but the hearts of many who come to Columbia as students.

NICHOLAS MURRAY BUTLER

COMMENCEMENT DAY

*June 5, 1912*

The Editorial Committee having in charge this publication have endeavored, with much assistance which they gratefully acknowledge, to make it as complete as possible, but the activities of the University are so manifold and its buildings so numerous that errors and omissions will doubtless be discovered. In order that later editions may be rendered more nearly perfect it is therefore requested that suggestions and corrections be sent to the Secretary of the University.

BRANDER MATTHEWS, *Chairman*

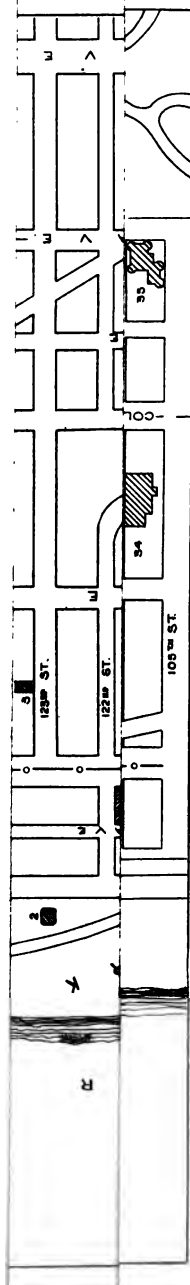
JOHN B. PINE

FREDERICK P. KEPPEL

FREDERICK A. GOETZE

RUDOLF TOMBO, JR.

FRANK D. FACKENTHAL



# MAP OF NEW YORK In the Vicinity of COLUMBIA UNIVERSITY.

- COLUMBIA UNIVERSITY BUILDINGS
- PROPOSED UNIVERSITY BUILDINGS
- ▨ OTHER PUBLIC INSTITUTIONS
- S SUBWAY STATIONS. - - - -
- E ELEVATED RAILWAY STATIONS. - - - -
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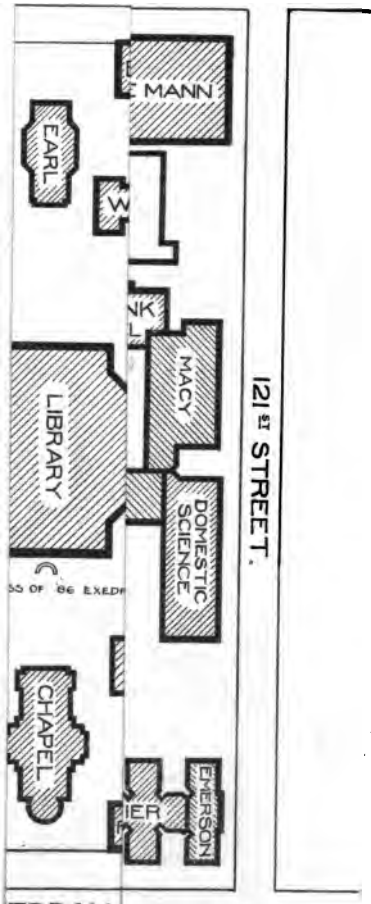
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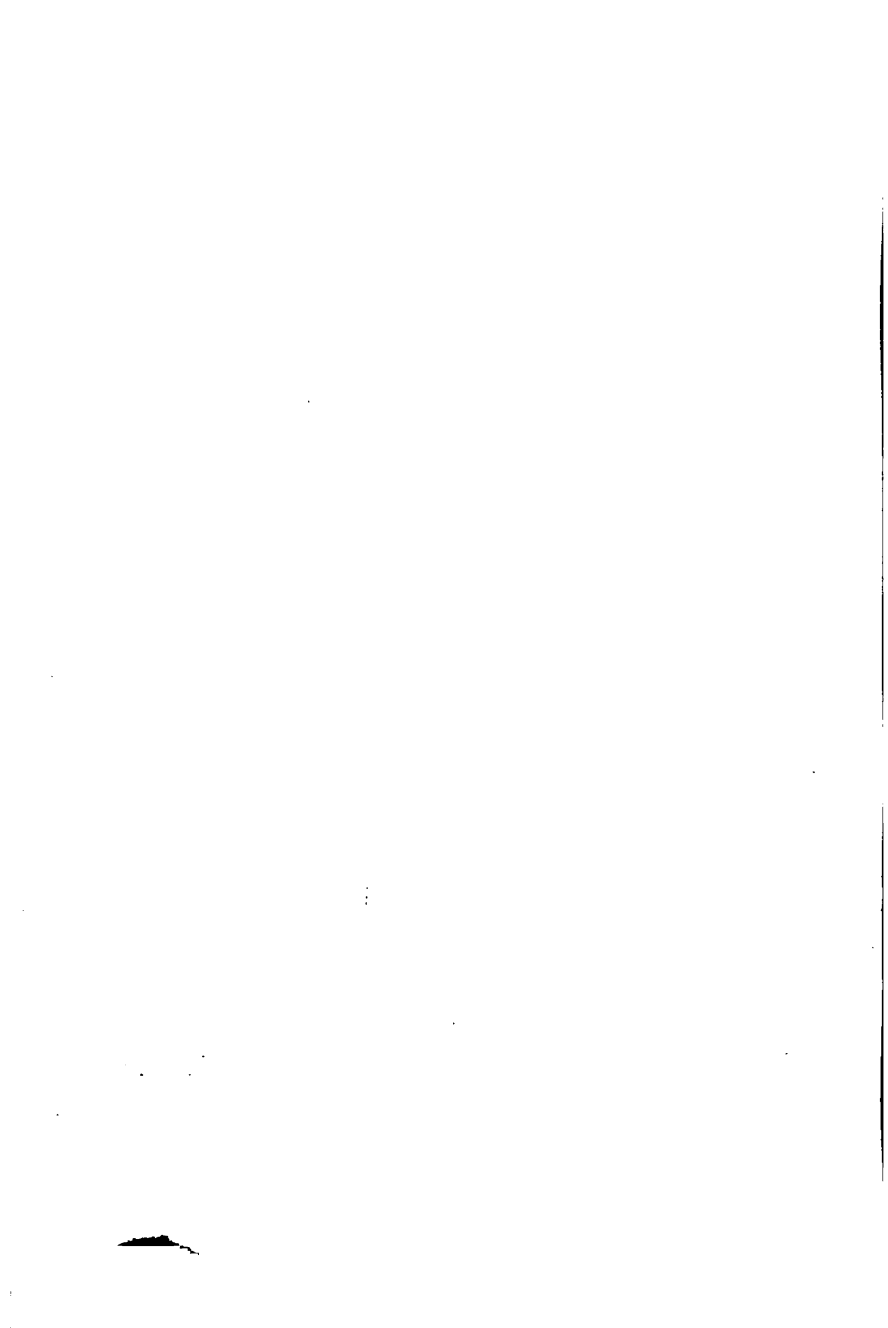
*A university is a place of concourse, whither students come from every quarter for every kind of knowledge. You cannot have the best of every kind everywhere; you must go to some great city or emporium for it. There you have all the choicest productions of nature and art all together, which you find each in its own separate place elsewhere. All the riches of the land and of the world are carried up thither; there are the best markets, and there the best workmen. It is the center of trade, the supreme court of fashion, the umpire of rival skill, and the standard of things rare and precious. It is the place for seeing galleries of first-rate pictures. It is the place for great preachers, great orators, great nobles, great statesmen. In the nature of things greatness and unity go together. . . . A university so placed is one in which the intellect may safely range and speculate, sure to find its equal in some antagonist activity, and its judge in the tribunal of truth. It is a place where inquiry is pushed forward, and discoveries verified and perfected, and rashness rendered innocuous, and error exposed by the collision of mind with mind, and knowledge with knowledge. It is a place which attracts the affections of the young by its fame, wins the judgment of the middle-aged by its beauty, and rivets the memory of the old by its associations. It is a seat of wisdom, a light of the world, a minister of the faith, an alma mater of the rising generation.—“The Office and Work of Universities.”—JOHN HENRY NEWMAN.*

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# **COLUMBIA UNIVERSITY**

## **HISTORICAL SKETCH**

THE inscription carved on the front of the Library, which is the center of the life of Columbia, epitomizes the aims and the history of the University, in these words:

### **KINGS COLLEGE**

FOUNDED IN THE PROVINCE OF NEW YORK BY  
ROYAL CHARTER IN THE REIGN OF GEORGE II  
PERPETUATED AS COLUMBIA COLLEGE BY THE  
PEOPLE OF THE STATE OF NEW YORK WHEN  
THEY BECAME FREE AND INDEPENDENT MAIN-  
TAINED AND CHERISHED FROM GENERATION TO  
GENERATION FOR THE ADVANCEMENT OF THE  
PUBLIC GOOD AND THE GLORY OF ALMIGHTY GOD  
MDCCCXCVI

On October 31, 1754, Letters Patent were issued incorporating THE GOVERNORS OF THE COLLEGE OF THE PROVINCE OF NEW YORK, IN THE CITY OF NEW YORK, IN AMERICA, and providing for the establishment of a college to be known as King's College, "for the Instruc-

tion and Education of Youth in the Learned Languages and in the Liberal Arts and Sciences." The Charter named as Governors twenty-four gentlemen of the Province, certain officials of the provincial government, and representatives of five different religious denominations.

The Rev. Dr. Samuel Johnson, who was chosen as the first president, had been sought in a similar capacity by the College of Philadelphia, and was recognized as one of the most prominent scholars of his time. He had published one of the earliest and most important works on philosophy and education which had appeared in this country, and had received the degree of S.T.D. from Oxford. His breadth of view and remarkable foresight are indicated by his announcement of the aims of the new college, which reads, in part, as follows:

A serious, virtuous, and industrious Course of Life being first provided for, it is further the Design of this College, to instruct and perfect the Youth in the Learned Languages, and in the Arts of Reasoning exactly, of Writing correctly, and Speaking eloquently: And in the Arts of Numbering and Measuring, of Surveying and Navigation, of Geography and History, of Husbandry, Commerce, and Government; and in the Knowledge of all Nature in the Heavens above us, and in the Air, Water, and Earth around us, and the various kinds of Meteors, Stones, Mines, and Minerals, Plants and Animals and of every Thing useful for the Comfort, the Convenience, and Elegance of Life, in the chief Manufactures relating to any of these things; And finally, to lead them from the Study of Nature, to the Knowledge of themselves, and of the God of Nature and their duty to Him, themselves and one another; and everything that can contribute to their true Happiness both here and hereafter.

Upon his appointment Dr. Johnson began giving instruction to the first class, consisting of eight students, using a room in the school house of Trinity Church. The first Commencement, at which seven degrees were conferred, was held in St. George's Chapel on June 21, 1758. In 1760, the first college building was so far completed that the officers and students "began to lodge and diet in it." This building, which was to house the College for nearly a century, stood near the corner now formed by Park Place and Church Street, on what was then known as the "King's Farm" in the outskirts of the city. Dr. Francis in his address on 'Old New York' describes the College as "justly proud of her healthy and beautiful locality, laved almost up to the borders of her foundations by the flowing streams of the Hudson."

In 1763, Dr. Johnson was succeeded in the presidency by Myles Cooper, a graduate of Queen's College, Oxford, a man of much cultivation, thoroughly imbued with Oxford ideals which he endeavored to implant in the colonial college. The student life of this period has been picturesquely described by John Parke Custis, the stepson of General Washington, who was himself a student under President Cooper. In the political controversies which preceded the Revolution, President Cooper was an ardent Tory. His chief opponent in discussion was an undergraduate of King's College, Alexander Hamilton (of the Class of 1777); but when a mob came to the College, bent on doing violence to the president, Hamilton held their attention by a speech which gave the president time to escape. The next year the Revolutionary War broke out, and the College was turned into a military hospital and barracks. Among

the former students and graduates who distinguished themselves during the war were Hamilton, Gouverneur Morris, John Jay, Robert R. Livingston, Egbert Benson, and Robert Troup.

Dean Van Amringe, in his chapter on the 'Alumni of King's College,' remarks that "it was the great good fortune and the glory of King's College, in its brief career of twenty-two years, during which it educated upwards of one hundred young men, to contribute through them, in a remarkable degree, to the welfare of the country."

In 1784, by an Act passed at the first session of the Legislature of the State of New York, the name of King's College was changed to Columbia, the word being then used for the first time; and the College was placed under the control of the Regents of the University of the State of New York. This Act, however, was repealed in 1787, when an Act was passed confirming the Royal Charter of 1754, and vesting the property and franchises of King's College in "The Trustees of Columbia College in the City of New York."

The first student to enter the College under its new name was DeWitt Clinton; and eight students were graduated at the Commencement held in 1786, which was attended by the Continental Congress.

In 1787, William Samuel Johnson, the son of the first president, and himself distinguished as a delegate to the convention which framed the Constitution of the United States, and also as a United States Senator, became the third president. At this time there were six professors, three in the Faculty of Arts and three in Medicine, and thirty-nine students. The funds of the College had been

greatly depleted by the Revolution, its income reduced to £1331, the library and scientific equipment almost entirely lost or destroyed; and the college hall was in a ruinous condition. With the aid of several small subsidies from the State and a few gifts from individuals, the new president and trustees undertook the reestablishment of the College by planning a comprehensive course of instruction and appointing several professors. A medical school, the first in this country to confer the degree of Doctor of Medicine, had been established in 1767; and James Kent, afterwards Chancellor, was appointed professor of law in 1793—this being the first instruction in law given by any American college.

On the resignation of President Johnson, in 1801, the Rev. Dr. Charles H. Wharton was elected president, but his term of office was very brief, and he was succeeded in the same year by the Rev. Benjamin Moore (of the Class of 1768), who subsequently became Bishop of New York.

In 1811, the Rev. Dr. William Harris became the sixth president, with the Rev. Dr. John M. Mason (of the Class of 1789) as provost.

In 1830, Judge William A. Duer became the seventh president; followed, in 1842, by Professor Nathaniel F. Moore (of the Class of 1802), who held the office for seven years. At the time of President Duer's resignation, there were one hundred and four students in the College. During the period from 1785 to 1849 the life of the College was a continuous struggle for existence, owing to inadequate means and lack of general support; but by persistent efforts educational standards were raised; the program of studies was greatly enlarged,

and the presence of a number of eminent scholars gave distinction to its faculty.

A new era began with the election as president of Charles King, who had been educated abroad, while his father, the Hon. Rufus King, was Minister to England, and who had been engaged in business and literary pursuits. He took office in 1849 under more favorable conditions than any of his predecessors, as at this time the "Botanical Garden," granted by the State to the College in 1814, and comprising the land between 47th and 51st Streets (which extended from Fifth Avenue nearly to Sixth Avenue, and which, as stated at the time of the grant "would not, upon a sale, bring more than six or seven thousand dollars"), began to be productive. From this time forward this property, which had heretofore been only a drain upon the meager resources of the College, became its principal source of income, and gradually made it possible to carry into effect the long projected plan for the educational development of the College. During President King's administration the College removed from its first site, where it had been for a century, to the block between Madison and Park Avenues, 49th and 50th Streets. The corner-stone of the old building was disinterred and carried to 49th Street (whence it was transferred to Morningside Heights when the University removed to its present site). The removal to 49th Street took place in 1857, when the number of students in the College was only one hundred and fifty-four; but the Trustees adopted a comprehensive plan for a "University Course of Study" which, though in advance of its time, has been amply realized in later years. As a part of this plan, the Trus-



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tees, in 1858, established a Law School (which occupied a building in Lafayette Place for many years, and was removed to 49th Street only in 1883); and other important advances were made during President King's administration.

On his resignation, in 1864, Dr. Frederick A. P. Barnard, formerly Chancellor of the University of Mississippi, became the tenth president and brought to the College a varied and profound learning, a wide experience in educational affairs, and an inspiring personality which have been largely instrumental in creating the present University. During his presidency a process of expansion began. In 1863, the School of Mines was established, the first to exist in the United States; and in the course of years this has developed into a group of schools of applied science. In 1881, the School of Architecture was organized. In 1880, a School of Political Science was established, which was also the first of its kind in the United States; and as the earliest school in Columbia intended specifically for graduate students, it was the precursor of the present system of graduate instruction.

After twenty-five years of distinguished service, President Barnard died in 1889, leaving his estate to the College; and in the following year Seth Low (of the Class of 1870), who had become widely known as an advocate of municipal reform, was elected president. His first efforts were directed towards the coordination of existing forces and towards increasing their efficiency. A School of Philosophy was established in 1890 to take charge of the graduate work in philosophy and the ancient and modern languages and literatures. In 1892, a corresponding School of Pure Science was established; and in order to

bring all parts of the College into harmonious and effective relations, a University Council was created, composed of delegates from all the various schools and charged with the interests of the institution as a whole, which then assumed the title "Columbia University."

The original College, which had for many years been called the School of Arts, was given a securer footing by receiving the name Columbia College and by being put under the supervision of a Dean (first Henry Drisler, of the Class of 1839, and then John Howard Van Amringe, of the Class of 1860); and a corresponding undergraduate college for women, founded in 1889 and named after President Barnard, with its own board of trustees, became a part of the educational system of the University. In the same year, 1889, a college for the training of teachers had been established, which subsequently adopted the name of Teachers College. This corporation also had its own trustees and, in 1898, it also became by agreement a part of the educational system of the University. In 1891, the College of Physicians and Surgeons, incorporated in 1807, and occupying extensive buildings at 59th Street and Tenth Avenue (including the Sloane Hospital for Women and the Vanderbilt Clinic), was consolidated with the University and became its School of Medicine.

With the process of expansion begun under Dr. Barnard and continued under President Low, the site on 49th Street became insufficient for the immediate needs of the University and wholly inadequate for its future expansion, and, in 1897, the University removed to its third site on Morningside Heights, where, in 1776, the Battle of Harlem Heights was fought. The original area, which comprised the four blocks between Broadway

and Amsterdam Avenue, 116th and 120th Streets, was enlarged in 1905, by the addition of the two blocks between 114th and 116th Streets; and in 1910 the Trustees purchased half of the block to the east on 116th Street. In 1897, Barnard College had acquired land immediately west of the University; and Teachers College was about the same time transferred to the block on the north. The development of the new site was made the subject of careful and protracted study, a general plan was adopted, and the unexampled generosity of its alumni and friends has already provided the University with a large and imposing group of buildings, although the immediate needs of the University are not yet satisfied. A model of the present buildings and of those which are projected may be seen in the basement of Kent Hall. In 1900, the University established its Summer Session, which has become one of the most largely attended in the United States.

On the resignation of Mr. Low, Nicholas Murray Butler (of the Class of 1882), then Dean of the Faculty of Philosophy, became the twelfth president, and was installed on April 19, 1901. In 1904, the University fitly celebrated the one hundred and fiftieth anniversary of the founding of King's College. In the same year the College of Pharmacy, owning the building 115-119 West 68th Street, was affiliated, and, in 1912, the School of Journalism was established.

The standard of admission to the various professional schools has been raised by successive increases in the requirements; and the earlier years of the College have become prerequisites for professional study. Relations with foreign universities have been brought about and

Columbia now sends professors to Germany every year to lecture on American themes, and receives from abroad professors from German, French, and other foreign institutions. It has formed alliances with the Union and the General Theological Seminaries in New York City and the Drew Theological Seminary at New Brunswick, N. J., with the American Museum of Natural History and the Metropolitan Museum of Art, with the Botanical Garden, and with the Zoölogical Garden. A wide variety of courses in Extension Teaching is provided for students unable to pursue a college training. Annual courses of lectures are delivered by officers of the University at Cooper Union and at the American Museum of Natural History.

The services of the University to the city, the state, and the nation are widely recognized, and it has had a host of generous benefactors. Its assets now exceed fifty millions of dollars in grounds, buildings, and invested funds. It has a faculty of nearly eight hundred, and the total enrollment of its students is over eight thousand.

NOTE.—For more detailed information reference is made to 'The History of Columbia University, 1754-1904,' published in commemoration of the one hundred and fiftieth anniversary of the founding of King's College, by the Columbia University Press. On sale at the University Book Store (West Hall).

# TEACHING STAFF

	Columbia University	Barnard College	Teachers College	Col. of Pharmacy	Total
		(Excluding the Horace Mann School)		(Excluding Duplicates)	
Professors (not including four administrative officers of professorial rank).....	177	29	20	8	177
Associate Professors	19	4	3	—	19
Assistant Professors	70	12	16	3	70
Clinical Professors..	16	—	—	—	16
Associates.....	43	1	—	1	43
Instructors.....	130	21	48	3	178
Demonstrators.....	8	—	—	—	8
Curators.....	1	—	—	—	1
Lecturers and other special officers of instruction.....	42	1	7	1	50
Assistants.....	65	10	14	1	80
Clinical Assistants...	79	—	—	—	79
Total.....	650	78	108	17	721
Administrative officers.....	28	6	14	7	31
Emeritus officers...	15	—	—	2	15
Total.....	693	84	122	26	767

# REGISTRATION OF STUDENTS IN ALL FACULTIES DURING THE ACADEMIC YEAR, 1911-1912

## FACULTIES

Columbia College.....	820
Barnard College.....	640
<b>Total undergraduates.....</b>	<b>1,460</b>
<hr/>	
Faculties of Political Science, Philosophy, Pure Science.....	1,433
<b>Total non-professional graduate students.....</b>	<b>1,433</b>
<hr/>	
Faculty of Applied Science.....	671
Faculty of Law.....	417
Faculty of Medicine.....	351
Faculty of Pharmacy.....	287
Teachers College.....	1,623
Fine Arts { Architecture.....	135
{ Music.....	20
<b>Total professional students.....</b>	<b>3,504</b>
<hr/>	
<i>Deduct double registration.....</i>	<i>324</i>
<b>Net total.....</b>	<b>6,073</b>
<hr/>	
Summer Session of 1911.....	2,973
<b>Grand net total*.....</b>	<b>8,363</b>
<hr/>	
Students in Extension Teaching.....	1,234
Special students in Teachers College.....	1,869

\* Excluding Summer Session students who returned for work in the fall.

# FINANCIAL CONDITION OF THE UNIVERSITY

	Columbia University	Barnard College	Teachers College <sup>1</sup>	College of Pharmacy	Totals
Property owned, June 30, 1911:					
1. Occupied for Educational purposes.....	\$14,762,000.00	\$2,869,843.86	\$2,943,000.00	\$125,000.00	\$20,699,843.86
2. Held for Investment.....	28,927,022.20	1,271,783.33	1,534,534.08	—	31,733,339.61
Total.....	\$43,689,022.20	\$4,141,627.19	\$4,477,534.08	\$125,000.00	\$52,433,183.47
Outstanding Debt.....	\$3,467,000.00	\$121,668.29	\$606,000.00	\$90,000.00	\$4,284,668.29
Annual Budget for 1911-12:					
1. For Educational Administration and Instruction.....	\$1,949,156.29 <sup>2</sup>	\$200,800.00	\$710,480.00 <sup>3</sup>	\$34,865.00	\$2,895,301.29
2. For Interest on Debt.....	115,670.00	—	28,250.00	4,050.00	147,970.00
Total.....	\$2,064,826.29	\$200,800.00	\$738,730.00	\$38,915.00	\$3,043,271.29
Income for 1910-11:					
From Fees of Students.....	\$755,741.96	\$108,476.34	\$438,916.74	\$38,426.48	\$1,341,561.52
From Rents.....	942,870.87 <sup>4</sup>	—	—	—	942,870.87
From Interest.....	299,884.07	60,223.14	64,992.11	—	425,099.32
From Miscellaneous Sources	101,701.17	300,639.63	53,012.04	7,802.06	463,154.90
Total.....	\$2,100,198.07	\$469,339.11	\$556,920.89	\$46,228.54	\$3,172,686.61

<sup>1</sup> Including cost and income of the Horace Mann School for 1910-11.

<sup>2</sup> This includes by duplication the amount paid in salaries to officers of instruction in Barnard College, \$120,600.00; and in Teachers College, \$175,400.00.

<sup>3</sup> Including Whittier Hall.

<sup>4</sup> Including \$278,313.39 accrued rents.

## THE QUADRANGLE

THE general plan of the University buildings on Morningside Heights comprises two groups, one of which occupies the site on the northerly side of 116th Street, extending to 120th Street, and the other, the site on the southerly side of 116th Street, extending to 114th Street, bounded on the east by Amsterdam Avenue and on the west by Broadway. The northerly group consists of the Library, which is the central feature of a series of buildings forming a large quadrangle, and including (on the east) East Hall, Kent Hall, Philosophy Hall, St. Paul's Chapel, Avery Library, and Fayerweather; (on the north) Schermerhorn, University Hall, and Havemeyer; and (on the west) Engineering, West Hall, Earl Hall, School of Mines, and Faculty Club. This enclosure will ultimately be divided into smaller quadrangles by buildings occupying positions corresponding to that of the Avery Library, the first of the inner buildings to be erected. **A Model** of all the University buildings, now existing and as projecting (gift of F. Augustus Schermerhorn, of the Class of 1868), can be seen in the basement of Kent Hall, which can be reached by taking the elevator on the left of the vestibule. The model is on a large scale (20 ft. x 35 ft.) and shows the buildings in detail as well as in their relations to each other.



ON THE QUADRANGLE

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The main approach to the group of buildings is through **South Court** (330 ft. x 123 ft.) on the north side of 116th Street, which is enclosed on three sides by walls and stairs of granite leading up to the Quadrangle. The greater part of the court is paved in a decorative pattern of brick and Istrian marble, relieved by squares of turf and masses of shrubbery, among which the principal features are two ancient yew-trees, which were formerly in the Hosack Botanical Garden and were transplanted to this site about 1830, when it was still occupied by the New York Hospital. On the main east and west axis of the court stand two monumental fountains of pink Stony Creek granite, the gift of an anonymous alumnus. Each consists of a monolithic basin nine feet in diameter, borne upon a support which rises out of a sunken basin sixteen feet in diameter, filled from a central jet. In the pavement, directly in front of the stairs leading up to the Library, is inlaid in bronze letters the following inscription to the memory of the chief architect of the University buildings:

CHARLES FOLLEN MCKIM MDCCCXLVII-MDCCCCIX. DE  
SUPER ARTIFICIS SPECTANT MONUMENTA PER ANNOS  
(*The monuments of an artist look down upon us from  
round about throughout the ages*).

A flight of low steps, which occupies the entire side of the court, is three hundred and thirty feet wide, the steps being constructed on a curve rising four inches in the center, after the example of Greek practice as seen in the stylobate of the Parthenon. In the center of the upper steps is a statue of Alma Mater in gilt bronze executed by Daniel C. French, the gift of the widow of the late Robert Goelet (of the Class of 1860). The

University is symbolized allegorically as a matronly figure in academic robes seated on a throne, holding a scepter in her right hand, and with an open book in her lap. An owl, the emblem of learning, is half concealed by the folds of the drapery at her feet, and on the back of the throne in low relief is the seal of the University.

On each side of the terrace are granite balustrades and pedestals which form a parapet, surmounted by colossal granite vases. Two flagstuffs, eighty feet high, set in ornate bronze vases, stand at the right and left. The western mast was presented in 1898 by the Lafayette Post of the Grand Army of the Republic; it is capped by a gilded eagle and bears the national colors. The eastern staff was presented in 1906, by the Class of 1881 as its twenty-fifth anniversary gift; it is capped with a gilded replica of the crown which originally served as a symbol of the royal charter of King's College (see p. 21), and bears the University flag, a white crown on a blue field.

The central feature of the group of University buildings, as above stated, is **The Library** (erected, 1895-97. The gift of Seth Low, LL.D., of the Class of 1870. Architects: McKim, Mead & White). Its exterior is of Indiana limestone, in a classical style of architecture based on Roman precedents but with many suggestions of Greek refinement in its details. Its plan is that of an octagon with alternate long and short sides, from the former of which project four short arms or wings. The main structure is of two stories and attic above a high basement, the whole surmounted by an octagonal superstructure crowned with a dome. The basement is entered by doors in each of the four short or oblique sides.

The main façade displays a flight of twenty-six steps leading up to a massive colonnade of ten fluted Ionic columns thirty-five feet high, on white marble bases. The frieze bears the title THE LIBRARY OF COLUMBIA UNIVERSITY, between the dates 1754 and 1897, above the inscription which is quoted at length on page 1. Above the roofs of the four wings rises the octagonal podium or base for the external dome, having in its four principal faces large semicircular clearstory windows lighting the reading-room within. The dome which surmounts this is a hemispherical self-supporting vault of masonry, ninety-seven feet in external diameter, surrounded at its base by three steps, after the model of the Pantheon at Rome, and covered with stone tiles, each carved into the semblance of a laurel leaf. Beneath the external dome is an inner dome of plaster on a steel frame forming the ceiling of the reading-room.

The four basement entrances lead through vestibules into lobbies, from which staircases of stone rise to the floors above. The central part of the basement is occupied by the stack room which extends down to the cellar level and has shelves for 80,000 volumes. The four wings of the basement are devoted to cloak rooms, service rooms for the Library, toilet rooms for men and women, the administrative offices of the Superintendent of Buildings and Grounds (Room 110) and the University Post-Office (Room 111), which is sub-station 84 of the New York Post-Office. In the Post-Office is the University telephone exchange, which is connected with the city telephone system and with the University buildings. These offices (110 and 111) adjoin the southeast entrance, which is always open.

The main floor is reached either by the four interior staircases already mentioned, or by the exterior flight (eighty-four feet wide) in front of the building. Upon the terminal parapets or abutments between which the twenty-six steps are set, stand two bronze torchères, the gift of Samuel Sloan, in memory of William Simpson Sloan (of the Class of 1882); they are nine feet high, designed after the model of a famous candelabrum in the Vatican Museum. The main entrance hall measures thirty by thirty-three feet and extends through two stories, with a richly panelled ceiling from the center of which hangs a colossal gilt bronze lantern. Directly in front of the door is the following inscription in bronze letters let into the marble pavement:

THIS BUILDING IS A MEMORIAL OF ABIEL ABBOT LOW, A  
CITIZEN OF BROOKLYN AND A MERCHANT OF NEW YORK:  
BORN IN SALEM, MASS., FEBRUARY VII, MDCCCXI: DIED  
IN BROOKLYN, N. Y., JANUARY VII, MDCCCXCIII.

In the center of the vestibule stands a pedestal surmounted by a white marble bust of Pallas Athene, a copy of the head of the "Minerve du Collier" in the Louvre Museum; the gift of J. Ackerman Coles; M.D., LL.D. (of the Class of 1864). About its base is an octagonal decoration in the pavement, set with the twelve signs of the zodiac in bronze in very low relief, the alternate panels having each two signs ingeniously combined.

On either side of the doorway against the wall are pedestals bearing finely executed bronze copies of antique busts: that on the right of the person entering is the Otricoli Zeus (erroneously inscribed as the work of



READING ROOM

Mr. Tolson

Phidias); that on the left, the head of Plato so-called (really a bearded Dionysus); also the gift of Dr. Coles. Four handsome bronze torchères, after an antique Roman model, are set in the corners of the hall. Two columns of green marble from Connemara (Ireland) separate the hall from the corridor beyond, which is reached by four steps of Istrian marble. A fine architectural vista is afforded between these columns and the inner row of columns up to the lofty blue dome of the Reading Room which occupies the entire central part of the building.

On the left side of the vestibule a door gives access to the office of the SECRETARY OF THE UNIVERSITY—the central office for information on all matters connected with the administration of the University. A private elevator ascends to the office of the President above. Upon the walls of the Secretary's office are a number of portraits: on the east wall, Abiel Abbot Low, by H. S. Todd; Hamilton Fish (of the Class of 1827), Secretary of State under President Grant and for thirty-four years chairman of the Trustees of the University, by Daniel Huntington; on the north wall, a portrait of the Duc de Loubat, a benefactor of the Library, by Madrazo; on the south wall, a portrait of the Rev. John M. Mason, S.T.D. (of the Class of 1789), Provost of Columbia College, 1811-16.

The corresponding door on the right or east side of the entrance hall admits to the TRUSTEES' ROOM. Visitors desiring to be admitted to this room should apply to the Superintendent, between 10 A.M. and 4 P.M. (except on Sundays and holidays). This room serves for the meetings of the various faculties as well as for the meetings of the Trustees. It is wainscoted for its entire height in

Irish bog oak with Ionic pilasters supporting a richly carved entablature, and is adorned with a plaster ceiling decorated in low relief with panels and rosettes. The room contains many objects of historic interest. The President's chair originally belonged to Benjamin Franklin; it is inscribed as follows: "*The Library chair of Dr. Benjamin Franklin bequeathed to Dr. David Hosack by the late Mrs. Catherine Bache Grand Daughter of Dr. Franklin and presented by Dr. Hosack to the Literary and Philosophical Society of New York, January, 1822.—Jacob Dyckman Rec. Sec.*" A fireplace in Caen stone is a conspicuous feature of the room and is in fact a monument of King's College, as the institution was originally named. In it is set the corner-stone of the first building erected in 1756 for King's College, bearing the inscription:

HUJUS COLLEGII, REGALIS DICTI, REGIO DIPLOMATE  
CONSTITUTI IN HONOREM DEI O. M. ATQ: IN ECCLESIAE  
REIQ: PUBLICÆ EMOLUMENTUM, PRIMUM HUNC LAPI-  
DEM POSUIT VIR PRÆCELLENTISSIMUS, CAROLUS  
HARDY, EQUES AURATUS, HJUS PROVINCIÆ PRÆ-  
FECTUS DIGNISSIMUS AUGTI, DIE 23<sup>o</sup> AN. DOM.  
MDCCLVI.

*(This first stone of this College called King's, established by royal charter to the honor of Almighty God and for the advancement of Church and State, was laid by the Most Excellent Charles Hardy, Knight, the very worthy Governor of this Province, August 23, Anno Domini 1756.)*

A paraphrase of this inscription appears on the corner-stone of Hamilton Hall, the present home of Columbia College (p. 62).

In the central panel of the chimney-piece is a portrait of Samuel Johnson, S.T.D., first president of King's College 1754-63, probably by L. Kilburn, who presented it to the College about 1756. Above the chimney-piece is a copper crown which once surmounted the flagpole of King's College, as the visible symbol of the royal charter under which the College was established in 1754, now adopted as an emblem of the University and as such is represented on the University flag. On the shelf of the mantel may be seen a telescope, which formed a part of the scientific apparatus of King's College and was used by General Washington during the Revolution; also a fine bronze copy of Houdon's bust of Franklin, the gift of Dr. Coles (of the Class of 1864).

A photograph of the Royal Charter granted to the "Governors of the College of the Province of New York in the City of New York in America," in the reign of George II (1754) for the founding of "King's College," may be seen under glass behind a sliding panel in the center of the wainscoting of the north end of the room. The original, engrossed on vellum in an easily legible round script, is one of the most valued historical possessions of the University. The other portraits in this room are the following: north wall (center), Myles Cooper, LL.D., second president of King's College, 1763-75, by Copley; (left), William Samuel Johnson, LL.D., president, 1787-1800, copy by Waldo after Gilbert Stuart; south wall (left), Benjamin Moore, S.T.D., president, 1801-11; east wall (right), William Harris, S.T.D., president, 1811-29; (left) William A. Duer, LL.D., president, 1829-42, by Inman; west wall, Nathaniel F. Moore, LL.D., president, 1842-49. The

portraits of the other presidents may be seen in the Librarian's Room, and in Kent and Earl Halls.

An ascent of four steps leads from the entrance hall to the south corridor. In the center of the floor is set the seal of the University in bronze. Upon the oaken wall formed by the backs of the bookcases are inscriptions commemorating early benefactors, and a series of early diplomas framed under glass. To the right and left are two marble busts of Washington, attributed to the American sculptors, Crawford and Greenough, respectively, the gift of General J. Watts de Peyster.

The corridor to the left passes through the southwest corner lobby, in which the rich pavement of colored Italian marbles is noticeable, as well as the four graceful bronze torchères or candelabra, of Pompeian design, in the corners. All the four lobbies are similarly adorned. The drinking fountain in this lobby was the gift of the late Edward A. Darling, superintendent of buildings and grounds of Columbia University (1890-1899), in memory of his wife, Edith Pennington. Farther on is the west corridor, on which is the Loan Room, containing the loan desk and card catalogue. From this room a door on the left and an intervening office lead to the Librarian's Room. The corresponding door on the other side admits to the accessions department: on either side this door are busts: (1) Macchiavelli, (2) probably Cæsar. In the librarian's room are several portraits, and an elaborately carved Chinese screen inlaid with mother-of-pearl presented by Ching Yun Sen and his Chinese fellow-students in 1904. The portraits are of Christopher Columbus, of



KENT HALL AND HAMILTON HALL

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George Ogilvie (of the Class of 1774), and of Charles H. Wharton, LL.D., president of the College for a few months in 1801.

The Library is open to students and officers of the University and to properly accredited readers not members of the University, every week-day except Labor Day, Thanksgiving Day, Christmas, New Year's Day, Good Friday, and Independence Day, from 8:30 A.M. to 11 P.M., except during July-September, when it closes at 10 P.M.

Opposite the entrance to the loan room is the entrance to the GENERAL READING ROOM. This room is an octagon, measuring seventy-three feet across, and covered by a dome seventy feet in diameter, which rises to a height of 105½ feet, resting on pendentives springing from four massive stone piers at the corners. Between these piers on each of the four sides are four noble columns, twenty-nine feet high, of green granite from Ascutney, Vermont, highly polished and capped by Greek Ionic capitals of gilt bronze. Four large semicircular clearstory windows light the spacious interior, which accommodates one hundred and fifty-two readers at desks disposed in circles about a central case containing dictionaries and encyclopædias. The clock over this case was the gift of the Class of 1874. In the fine carved oak bookcases surrounding the room are five thousand volumes for every-day reference.

The sixteen columns above mentioned support four galleries under the clearstory windows, with stone parapets or balustrades which it is intended to adorn with sixteen statues of heroic size, one above each column. Four of these are in place, at the north side: beginning

at the left, Euripides, a copy of the Giustinian Euripides in the Vatican, the gift of the architect Charles F. McKim; a copy of the Vatican Demosthenes, the gift of W. Bayard Cutting (of the Class of 1869); Sophocles, a copy of the statue in the Lateran Museum, the gift of Dr. George G. Wheelock (of the Class of 1864); Augustus Cæsar, a copy of the Louvre statue, the gift of F. Augustus Schermerhorn (of the Class of 1868): all four of Istrian marble. The dome overhead is the inner dome or ceiling; from its summit hangs a white sphere,  $7\frac{1}{2}$  ft. in diameter, which, when lighted on certain occasions by electric searchlights produces the impression of a luminous globe or moon, diffusing a soft white light through the upper spaces of the room.

Upon the bookcases in the four corners of the room are the following bronze busts: northwest corner, Frederic de Peyster (of the Class of 1816); northeast corner, John Watts (1749-1836), founder of the Leake and Watts Orphan Asylum: these two by G. E. Bissell, sculptor, the gift of General J. Watts de Peyster in 1889. In the southeast corner, Socrates; southwest corner, Hermes, copy of the Hermes of Praxiteles at Olympia; on the central case, east side, bust of Beethoven. The last two are the gift of Dr. Coles (of the Class of 1864).

Opening from the north corridor is the PERIODICAL ROOM, measuring 61 ft. x 37 ft., extending through two stories in height and covered by a paneled ceiling. The room contains 5000 bound volumes of periodicals; and 600 current periodicals from all parts of the world are accessible on its shelves.

In the east corridor is a bronze bust of Homer, a copy

of a marble head in the Louvre Museum, the gift of Dr. Coles (of the Class of 1864); also a vase, four feet seven inches, with figures in relief, the gift of J. Aburatani and a number of Japanese students in 1904.

The door on the east admits to the EXHIBITION ROOM, 39 ft. x 58 ft. in size, formerly occupied by the Avery Library, which is now housed in a separate building (p. 39). This room is used for public exhibitions of rare books, manuscripts, bindings, and drawings. The beams of the ceiling bear the names of great architects. From this room a door in the north end admits to a room devoted to a collection of Columbiana, and another in the south end to a room devoted to engravings, manuscripts, and maps.

The upper floors, reached by the four staircases from the corner lobbies, are devoted chiefly to the various collections of the library. On the second floor, the east side is devoted to the social sciences, the west side to modern languages; the north side being occupied by the upper part of the Periodical Room, and the south side by the upper part of the entrance hall. The third floor is devoted to history on the west side, and to philosophy on the north side, the remainder being occupied by offices and workrooms. The total number of volumes in the Library is nearly 500,000, besides many thousands of pamphlets and manuscripts, and 30,000 German university dissertations, contained in the Library Building, and in departmental libraries and in Kent and Avery Halls.

From the southeast corner vestibule on the third floor access may be had to the exterior dome, from which there is a fine view of the University buildings and of the entire city. The summit of this dome is 134 feet above

the level of the campus. For admission application must be made in the Superintendent's office in Room 110 in the southeast corner of the basement.

Although Columbia has no funds to spend on rare books or on volumes notable chiefly for their beauty of page and binding, it is fortunate in the possession of an abundance of *variora*, thanks to the gifts of its friends. Many of these were received by bequest from Stephen Whitney Phoenix in 1881, among them a large number of sumptuously illustrated folios dealing with art and archæology. By the Phoenix bequest the library came into possession of two of its 250 incunabula, Caxton's "*Boke of the Fayt of Arms and Chyvalre*" (London, 1489), and Wynkyn de Worde's edition of "*De Proprietatibus Rerum*" of Bartholemeus (London, 1495). There are also a Herodotus printed by Étienne in 1618, bound in red morocco for Louis XIII, and an Aldine Iamblichus of 1516 bound for Grolier with his famous motto, *Io. Grolierii et amicorum*. Among the MSS. in the library are chapters by Emerson and Hawthorne, Holmes and George Bancroft. Especially noteworthy is the collection of letters to and from DeWitt Clinton (of the Class of 1786).

Among the association books are volumes that belonged to Ben Jonson and to Racine (this latter containing many notes). There are also 150 autograph letters of Pierre Bayle, with references to Molière and Descartes. The special collection devoted to Kant numbers more than 1500 volumes and there is a Goethe collection of about the same size. The Shakspeare collections extend to more than 2000 volumes and the

Milton to 250. A Molière collection of nearly 400 volumes has been presented to the library but has not yet been received. To be noted also are collections dealing with the French and Russian revolutions and with the anarchistic movement, this last being unique. Especially useful are 60,000 European dissertations.

To the southeast of the Library is a temporary building known as **East Hall**, in which are a number of administrative offices of the University. Here are the offices of the Bursar, the Registrar, the Dean of the graduate faculties, and the Provost of the University; also the offices of the Alumni Council, the Committee on Employment for Students, and the Committee on Undergraduate Admissions. The **Columbia University Press**, which also has its offices in this building, was organized in 1893, with the approval of the Trustees of the University, primarily for the purpose of promoting the publication of works embodying the results of original research. The Press is a private corporation, directly related to the University; and it is conducted not as a commercial enterprise, but in the interest of higher education. The officers of the Press are: Nicholas Murray Butler, President, William H. Carpenter, Secretary, and John B. Pine, Treasurer.

To the southeast of the Library and on the corner of 116th Street and Amsterdam Avenue stands **Kent Hall** (erected 1910, with funds largely provided by the bequest of Charles Bathgate Beck of the Class of 1877, College, and 1879, Law. Architects: McKim, Mead & White).

**HISTORICAL NOTE.** The Schools of Law and of Political Science occupy Kent Hall, which is appropriately named for Chancellor James Kent, appointed professor of law in Columbia College in 1793, and reappointed in 1823 after his retirement from the office of Chancellor of the State of New York. Though his active incumbency under his first appointment extended for only two years and under his second appointment only three years, he continued to hold his professorship until his death in 1847, and his famous "Commentaries" were outlined in the lectures which he delivered to Columbia students.

The beginnings of law instruction in Columbia go back to 1773, when there was established in King's College the first professorship of law in an American institution of learning. Law instruction at Columbia was, however, discontinuous and irregular until the establishment in 1858 of the School of Jurisprudence, transformed in the following year into the School of Law. For the ensuing thirty-two years the school was conducted by Theodore W. Dwight, as professor of municipal law, and for twenty years all the prescribed courses were given by him. In 1878 the regular staff of instructors was increased by the addition of two more professors, and ten years later the course of study was extended from two to three years. At the present time (1912) forty-one courses are offered by eleven professors and three other lecturers, and the registration of the school exceeds 450.

The original plan for the School of Jurisprudence embraced instruction in history, political economy, political philosophy, international and foreign law, and jurisprudence. Among the scholars called to Columbia for the realization of this plan was Francis Lieber. In



HALL OF PHILOSOPHY

1970

the School of Law, which developed a strictly professional course of instruction for students desiring to practice at the bar, little attention was paid to these subjects. In 1876 Professor John W. Burgess was appointed professor of political science; and in 1880, at his suggestion, the School of Political Science was established, designed to supplement the courses in private law "with those studies in ethics, history, and public law necessary to complete the science of jurisprudence." The field covered by this school has steadily widened, until at the present time (1912) over one hundred and seventy courses are offered by twenty-five professors and half a dozen associates and instructors in the fields of history and political philosophy, economics, sociology, social economy, statistics, public law, foreign law, and comparative jurisprudence, and the registration in the school exceeds 400, exclusive of those students who are pursuing the professional law course.

DESCRIPTION. The intimate relations existing between the Schools of Law and of Political Science render it appropriate that they share the same building. In conformity to the general design of Columbia's buildings, Kent Hall is constructed of overburned brick and limestone, set upon a base of granite, its dimensions being 205 ft. x 53 ft. The first floor, entered on the north side from the quadrangle, is occupied by the LAW LIBRARY AND READING ROOM, extending the entire length of the building. On the walls hang portraits of Chancellor Kent, Professor Dwight, Professor Burgess, Charles M. Da Costa [a trustee of the College (1886-1890), to whom the Law School is indebted for wise counsel and benefactions], and President Butler. At the east and west ends of the

Law Library are alcoves with galleries, containing study tables for the accommodation of 336 students, and bookshelves with a capacity for 25,000 volumes, so ordered that the books are immediately accessible to readers. In the basement, which is above the street level, and in the sub-basement are book-stacks with a capacity for 80,000 volumes and ample space for an equal number of additional stacks. The Library of the Law School now (1912) comprises nearly 50,000 volumes, not including the works in jurisprudence, public law, and foreign law which form a part of the library of political science. In the basement, also, are moot-court and locker rooms, a social room for the use of students, and the editorial office of the *Columbia Law Review*. In the sub-basement is the model of the University buildings (p. 14).

The second floor is occupied by lecture rooms and the offices of the Dean and other members of the Law Faculty. On the third floor are lecture rooms shared by the two schools, seminar rooms for the departments of economics, sociology, statistics, and public law, with offices for the professors.

Immediately to the north of Kent Hall, but on a slightly lower level, is the **Hall of Philosophy** (erected in 1910. The gift of an anonymous donor. Architects: McKim, Mead & White). This building is occupied by the Faculty of Philosophy, one of the three university faculties which direct the work of the more advanced students.

**HISTORICAL NOTE.** What is known as the Graduate School in most American universities is at Columbia represented by distinct but allied schools, that of Philo-

sophy, that of Political Science, and that of Pure Science. The faculties of these schools comprise the Graduate Faculties, and collectively they have much the largest body of students of any graduate school in the United States. The Faculty of Philosophy, which has charge of the work in philosophy, psychology, and ethics, and also that in classical philology, in the ancient languages and literatures, and in modern languages and literatures, was established in 1890, but it relates back to the earliest days of King's College when Samuel Johnson, the first president and, for the time being, the only instructor, taught the students Greek, logic, metaphysics, and ethics. His work in philosophy was among the very first published in this country, and he ranked among the leaders of thought of his time. Professorships in the French, German, and Oriental languages were established in 1784, in Italian in 1825, and in Hebrew and Spanish in 1830.

**DESCRIPTION.** The main floor of this building is occupied by a large social room and study for the women graduate students, suitably furnished and hung with engravings; several lecture rooms, and the office of the Director of the Summer Session and of Extension Teaching.

On the mezzanine and second floors are the studies and lecture rooms of the departments of Oriental languages and literatures, of Romance languages and literatures, and of Germanic languages and literatures. The editorial offices of the *Romanic Review* and the special library of the Germanic department are on the second floor.

The third floor is occupied by the offices and lecture rooms of the professors of English and comparative literature, who are in charge of the graduate work, the

professors in charge of the undergraduate courses having their studies in Hamilton Hall, Barnard, and Teachers. On this floor is also the CARPENTER LIBRARY, a large room containing a collection of books given as a memorial of George Rice Carpenter, professor of rhetoric and English composition (1893-1909). This library already contains some 2400 volumes and is classified and catalogued on the same system as the general library, its chief aim being to give students ready access to the works particularly needed in connection with the stated courses of study. The walls are hung with portraits; but the most interesting feature of the room is the mantelpiece from the room in Brennan House, formerly at 84th Street near the Hudson River, in which Poe wrote "The Raven." Above this mantelpiece hang the models for the obverse and reverse of the Bunner Medal which is awarded annually for an essay on a subject in American literature.

Connecting with the Carpenter Library on the west is the Brander Matthews DRAMATIC MUSEUM, which occupies two rooms, the first containing books dealing with the history of the theater, and the second containing a collection of views of theaters, interior and exterior, of masques and carrousels, and of outdoor performances of various kinds, together with portraits of distinguished actors of various periods in the costumes they wore on the stage. It has also models of five of the theaters typical of the more important epochs in the development of the drama.

1. The stage of the Mystery acted at Valenciennes in 1547. This is a duplicate of the model prepared for the Paris Exhibition of 1878 and now in the library of the Opéra. It was made by MM. Duvignaud and

Gabin, under the direction of M. Marius Sepet (the gift of Brander Matthews of the class of 1871.)

2. An open place in an English village with the pageant-wagon representing Noah's Ark. This is a reproduction of the set shown at the New Theater in the spring of 1911. It was made by Mr. Joseph Wickes, under the direction of Mr. E. Hamilton Bell. (The gift of Mr. Winthrop Ames.)

3. The court-yard of an English inn with the platform on which strolling players are performing "The Nice Wanton." It was made by Mr. Joseph Wickes, under the direction of Mr. E. Hamilton Bell. (The gift of Messrs. H. C. Chatfield-Taylor and Otto H. Kahn.)

4. The Fortune Theater, erected in London in 1600 (on the plan of Shakspere's Globe). It was made by Mr. James P. Maginnis, under the direction of Mr. Walter H. Godfrey. (The gift of Mr. Clarence H. Mackay.)

5. The Palais Royal, erected in Paris in 1639 by Cardinal Richelieu (and occupied after 1661 by Molière and his company). It is a German cut-out made under the direction of Dr. Fritsche. (The gift of Mr. E. Hamilton Bell.)

There are now more than 2000 volumes on the shelves of the Dramatic Museum, including special collections on the Elizabethan theater, on nineteenth-century French drama, and on Richard Brinsley Sheridan (this last being the largest collection outside the British Museum). There are also interesting gatherings of books on subdivisions of theatrical history—the opera, the ballet, the puppet-show, the circus, and pantomime. The folk-theater and the shows given in the fairs of London and Paris are also well represented.

The fourth floor is occupied by the departments of classical philology, including the studies of the professors of Greek and Latin, and a departmental library.

Here also is the CLASSICAL MUSEUM. On account of the nearness of the Metropolitan Museum of Art and the liberality with which its collections are opened to students of the University, little attempt has been made to develop a large museum of classical antiquities at the University. The Metropolitan Museum contains admirably chosen collections of ancient sculpture (both original works and plaster casts), of vases, and many casts of notable architectural monuments. The University has, however, an excellent collection, left to it by the late Professor Olcott, of original objects illustrating many phases of ancient Roman life, and a collection of similar scope is projected for the illustration of ancient Greek life. Such an equipment is in effect a kind of laboratory of the greatest value to students of ancient civilization. The department of classical philology also possesses a large and valuable collection of photographs, and some hundreds of lantern-slides. The photographs include the two great series, "Denkmäler griechischer und römischer Skulptur" and "Griechische und römische Porträts." There is a large set of very accurate electrotyped facsimiles of Greek coins, and a large collection of original coins, both Greek and Roman. For the study of epigraphy the department possesses a large number of Roman inscribed stones, and an extensive collection of paper impressions of Greek inscriptions.

The department of philosophy, psychology, and ethics, (except the laboratory for experimental psychology, which is in Schermerhorn Hall) has its studies and lecture-

rooms on the fifth floor and here also are the editorial offices of *Science* and of the *Popular Science Monthly*.

The basement of the building fronting on Amsterdam Avenue is very fully equipped for advanced work in electrical engineering.

Opposite the entrance of the Hall of Philosophy stands an ancient well-head brought from the court of the Palace of Ambassadors in Venice; the gift of the Class of 1887, College, on its twenty-fifth anniversary.

At right angles to the Hall of Philosophy and facing toward the Library is **St. Paul's Chapel** (erected 1904. The gift of Olivia E. P. Stokes and Caroline Phelps Stokes. Architects: Howells & Stokes). This is by many regarded as architecturally the most interesting building in the University group. It stands at the eastern end of the central transverse axis of the main group, and its dimensions are 140 ft. x 32 ft. x 112 ft. It is built of overburned brick with trimmings of limestone, and forms in plan a short Latin cross prolonged at the east by a semicircular apse and at the west by a vaulted portico of four columns. The crossing is covered by a dome which is externally protected by a tiled roof, and which in general form suggests the domical Renaissance churches of Milan and Northern Italy. The portico bears the inscription "Pro Ecclesia Dei," and the capitals are adorned with cherub-heads by the sculptor Gutzon Borglum. The porch is vaulted with Guastavino tiles in color, showing the emblem of the cross, and above the doorway is carved the motto of the University, "In lumine tuo videbimus lumen." In front of the two piers

or abutments at the ends of the porch stand two bronze torchères (given by the Class of 1883 on its twenty-fifth anniversary). They are in the style of the Florentine Renaissance, the last work of a Florentine sculptor, Arturo Bianchini, formerly resident in New York, who died in Florence before the unveiling of these, his masterpieces. The interior of the church is marked by extraordinary dignity and simplicity of treatment, and a perfect unity of design. "In the soaring lines of the dome there is an uplift which carries the thought with it, and throughout there is a sense of benediction and peace. Designed and constructed by the architects in the spirit which inspired the builders of the cathedrals of the Middle Ages, the Chapel expresses in every line and detail the sincerity of its religious character."

The walls are of warm-toned salmon-colored brick, and the vaulting, including the noble dome, which rises to a height of ninety-one feet, internally, with a diameter of forty-eight feet, is executed in Guastavino tiling of a pink tone which harmonizes admirably with the walls. It is supported by pendentives resting on the four richly paneled arches of the crossing. Sculptured symbols of the four Evangelists adorn the crowns of these arches, and the drum of the dome, beneath the windows, forms a strikingly effective arcaded gallery. The galleries in the north and south transepts are adorned with bronze railings, which like the bronze electroliers and brackets are of significant and beautiful design. Appropriate scriptural texts are carved upon the frieze which encircles the interior.

It has been observed of this edifice that it is designed in the Italian Renaissance style, upon a scheme of Byzantine origin, carried out on Gothic principles of structural



ST. PAUL'S CHAPEL

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logic, by means of modern engineering calculations, and with distinctly American materials, and that the perfect harmony of the result is a vindication of American eclecticism in the hands of its talented architects. The choir is fitted with pulpit, stalls, and organ fronts of Italian walnut, decorated with carving and *intarsia*, or inlay, executed in Florence by Coppede Brothers from sketches furnished by the architects, the details of the design being inspired from the stalls in Santa Croce, Florence. The pulpit is particularly worthy of notice. The floor of the entire church is paved with marble terrazzo in which is set a decorative pattern in small fragments of porphyry, verd antique and yellow marble from a demolished early Christian Church in Rome. In the apse are three windows executed by the late John LaFarge.

The design represents St. Paul preaching to the Athenians on Mars Hill, and illustrates the text, which is carved on the marble frieze of the apse, "Whom therefore ye ignorantly worship, him declare I unto you" (Acts xvii: 23). The scene is supposed to be the portico of one of the buildings on Mars Hill on the Areopagus, and the architectural lines of the portico, extending through the three windows, give a sense of unity to the composition. Between the columns in the background is seen part of the outline of the Acropolis. In the central space the Apostle is represented, standing in an attitude of earnest exhortation, upon a marble platform, below which descend the steps of the portico. At the foot of the steps and on either side are grouped a number of figures whose poses express the varying degrees of attention, sympathy, indifference, belief, or doubt with which they listen to the words of the Apostle. The figure of the old man standing near the Apostle represents Dionysius who accepts the new teaching. Below him, seated in a chair of classic design, is Damaris, absorbed in the Apostle's argument. In the right hand division, upon a judge's seat, sits one of the officials of the Court of Areopagus in doubtful meditation, while below him are several figures expressive of doubt and dissent. "Some mocked

and others said, we will hear thee again of this matter." Another group in the left hand division, composed chiefly of the plainer sort, represents those who "clave unto him and believed." The ornamental border below the windows, which follows a Greek pattern, has in the center the representation of the altar, with the words in Greek text, "To the Unknown God," to which St. Paul refers in the chapter and verse quoted. Other texts in Greek upon the borders are quotations explaining the significance of the several figures.

The twenty-four windows in the drum of the dome are adorned with the arms of notable old families of New York whose names are associated with the history of the University: Philip Van Cortlandt of the Class of 1758; Anthony Lisenard, 1761; Abraham de Peyster, 1763; Frederic J. de Peyster, 1862; Egbert Benson, 1765; Gerard Beekman, 1766; Philip Pell, 1770; Thomas Barclay, 1772; DeWitt Clinton, 1786; William C. Rhineland, 1808; Nicholas Fish, Trustee 1817 to 1833; Gouverneur M. Ogden, 1833; Nathaniel G. Pendleton, 1813; Robert B. Minturn, 1856; Ambrose C. Kingsland, 1856; George L. Kingsland, 1856; Mahlon Sands, 1861, Philip J. Sands, 1863; Louis M. Cheesman, 1878. These windows were executed by Maitland Armstrong & Co.

The present windows in the transept are temporary, and it is hoped that the spaces will be filled by memorials. It has been suggested that the window in the south transept shall represent the great teachers of the Old Testament, and shall be a memorial of the Rev. Dr. Samuel Johnson, the first president of King's College (1754-1763) and that the window in the north transept shall represent the great teachers of the New Testament and shall be a memorial of President Barnard (1864-1889).

A tablet in the choir states that the Chapel was erected

in memory of James Stokes and Caroline Phelps, his wife, the parents of the donors, and a tablet in the north transept is a memorial of James Hulme Canfield, Librarian of the University (1899-1909).

The organ, built by Ernest M. Skinner and Company of Dorchester, Massachusetts, is considered one of the finest in New York, and is noted for the sweetness and richness of its tone, as well as for the beauty of its case.

Services are held in the Chapel daily, except Saturday; at 12 M. on Monday, Tuesday, Thursday, and Friday; on Wednesday at 5:10 P.M., and on Sunday a service with sermon is held at 4 P.M., the preachers being clergy of all denominations. The services are according to the ritual of the Episcopal Church, the musical portions being rendered by a large choir of University students, accompanied by the organ. Organ recitals are also frequently held in the afternoon in the Chapel, which is open to visitors from 10 A.M. to 5 P.M.

Opposite the door of St. Paul's Chapel is a marble exedra on which is carved the inscription:

TO FELLOWSHIP AND LOVE OF ALMA MATER,  
CLASS OF 1886, ARTS, MINES, POLITICAL SCIENCE,  
25TH ANNIVERSARY, 1911.

North of the Chapel and facing the west side of the Library is the **Avery Library** (erected 1911. The gift of Samuel P. Avery. Architects: McKim, Mead & White).

**HISTORICAL NOTE.** The Avery Library of Columbia University is the standard architectural library in the

United States, and is equaled by only one or two others in the world. It was founded by the late Samuel P. Avery, father of the donor of the building, and Mrs. Avery in memory of their son, Henry Ogden Avery, a young architect of great promise who died in 1890. The scope of the library includes architecture, and the arts of construction and decorative design allied to architecture. There are at present on the shelves of the library 19,066 volumes and 110 current periodicals, representing the United States, Canada, and eight European countries, as well as all the standard monumental works on architecture, including such rarities as the 1470 edition of Alberti's *De Re Aedificatoria*, the Catalogue of the Walters Collection, and the Ongania St. Mark's. Although intended primarily for the use of the students of the University, the library is open daily (except Sundays and certain holidays) from 9 A.M. until 6 P.M. and from 7 till 11 P.M., without restriction, to all architects and students of the arts of design.

The School of Architecture, established by the Trustees in 1880 under the direction of Professor William R. Ware, as a department of the School of Applied Science, then known as the Columbia School of Mines, is now a school under the University Faculty of Fine Arts. It maintains courses leading to a degree (B. Arch.) in architecture and to a professional Certificate of Proficiency, and employs a teaching staff of nine professors and instructors. The students number 150 to 175 in the courses of architectural design, architectural engineering, and landscape art. The collections and apparatus of instruction include 900 volumes, 18,000 photographs, 9000 lantern slides, many valuable drawings and casts, a number of fine models of



EVERY LIBRARY

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ancient and modern buildings, and a collection of building materials and appliances.

**DESCRIPTION.** This building was erected especially to house the Avery Architectural Library, and also to afford accommodation to the School of Architecture. It is the first of the inner series of four buildings which will ultimately separate the great inner court from four smaller exterior courts. Like the other buildings of the group it is constructed of over-burned brick with limestone trimmings; the exterior dimensions being 150 ft. x 50 ft. The ground story, which is twenty-two feet high, is devoted entirely to the AVERY ARCHITECTURAL LIBRARY; and the upper stories are occupied by the lecture rooms, drafting rooms, offices, and departmental library of the School of Architecture, an exhibition room for books and drawings, and a museum of building materials and appliances. The basement contains a museum of casts. The main entrance is through an imposing Ionic portico of four columns on the west side of the building. The Avery Library is a spacious and dignified room, 146 ft. x 46 ft. in size, divided into three aisles by square piers. The side aisles are occupied by alcoves, divided into two stories by continuous galleries, and the whole room is covered with a paneled and carved ceiling. It is connected with the departmental library of the School of Architecture on the third floor and with the lecture rooms of the School by book lifts, making the entire resources of the library available for class illustration and for use by the instructors.

Behind the Avery Library and parallel to it on Amsterdam Avenue is **Fayerweather Hall** (erected

1896, from the bequest of Daniel B. Fayerweather. Architects: McKim, Mead & White). A bronze tablet on the Amsterdam Avenue side of this building contains the following inscription:

TO COMMEMORATE NEW YORK CITY DEFENSES DURING THE WAR OF 1812: BARRIER GATE MCGOWAN'S PASS, BARRIER GATE MANHATTANVILLE, FORTS CLINTON, FISH, AND HAIGHT, AND THREE STONE TOWERS. ALSO IN HONOR OF MAJ. GEN. GARRIT HOPPER STRIKER (THEN CAPTAIN), 5TH REGIMENT, 2ND BRIGADE. ERECTED BY U. S. D., 1812, EMPIRE STATE SOCIETY, FEBRUARY 22ND, 1900.

This building (150 ft. x 57 ft. x 100 ft.) is occupied by the department of physics, except the rooms devoted to astronomy. A tablet in the wall of the north vestibule commemorates the name of the donor.

**DESCRIPTION.** On the first floor are the two lecture rooms of the department of physics, and the general apparatus room and stock room supplies; also two shops for the repair of apparatus and the construction of special instruments.

The second floor contains the general laboratory for College students and five rooms devoted to special and research work, and the offices of the department of physics. The research laboratories are designated collectively as the PHOENIX PHYSICAL LABORATORIES in recognition of the bequest of Stephen Whitney Phoenix (of the Class of 1859).

On the third floor are a lecture-room, the museum containing the models of the department of mathematics, the library and reading-room of the department of physics, several offices of the instructors in this department, and

the laboratories for advanced students who are either taking minor graduate work in physics or conducting research for their doctor's degree.

On the top floor are the offices of the department of astronomy and two rooms devoted to the measurement and reduction of photographic star-plates. There are also four small lecture-rooms for seminar and advanced work, and offices for two professors of mathematical physics.

In the basement, which is well lighted, are the laboratories for undergraduate students in courses in engineering, and also lecture, laboratory, and demonstration rooms for courses for students in optometry. There are in addition two rooms for research and special work, and rooms for work requiring ground floor and relative steadiness. One of these is a station of the U. S. Gravitation Survey, and another has been similarly used by the Austrian government. On this floor are located the storage battery of the department and the distribution switch-board, which sends currents of various kinds to any of the rooms.

Opposite the northern ends of Fayerweather and the Avery Library, and corresponding to Kent Hall on the southern side of the Quadrangle, is **Schermerhorn Hall** (erected 1896. The gift of William C. Schermerhorn of the Class of 1840. Architects: McKim, Mead & White).

**HISTORICAL NOTE.** The School of Pure Science was established in 1892 for the purpose, as stated in President Low's report of 1893, of encouraging scientific research and of unifying its interests in the University.

The original faculty of pure science included representatives of the departments of mathematics, geology, mineralogy, botany, zoölogy, and physiology. It was from the beginning affiliated with the faculties of applied science and of medicine, and came into still closer relation with them through the subsequent assignment to it of representatives of the departments of engineering, metallurgy, mining, anatomy, pathology, bacteriology, and pharmacology. This faculty has charge of all non-professional graduate scientific work leading to the degrees of A.M. and Ph.D., but many of its members also occupy seats in the professional faculties.

**DESCRIPTION.** The building (205 ft. x 80 ft. x 100 ft.), as the inscription over the entrance indicates, is devoted to natural science. It is occupied by the departments of geology, mineralogy, botany, zoölogy, and psychology. On the right of the spacious entrance hall stands a bronze bust of the donor, and an inscription in bronze letters inlaid in the floor commemorates his gift. Opening upon the hall is a large general lecture-room, mainly used for public lectures; at the left is the museum of economic and physical geology, at the right the EGLESTON MUSEUM of mineralogy, each containing large and valuable collections. Two lower floors are occupied by museums, laboratories, and special research-rooms for invertebrate paleontology, stratigraphic geology, mineralogy, and blow-pipe analysis. The museums and laboratories of paleontology contain extensive collections of fossil invertebrates illustrating all the geological horizons of North America and many of those of Europe.

The second floor, immediately above the entrance, contains the general laboratory of inorganic geology and

petrography, special laboratories, the lecture-room and the library of the department. At the eastern end are the laboratories, lecture-room, and library of the department of psychology, which also has a number of special research-rooms on the floor above. The third floor is mainly occupied by the department of botany, and contains a large general undergraduate laboratory, two special graduate laboratories, the departmental library, and other rooms. Important additional facilities for work in botany are afforded by an experimental greenhouse in East Field, and by the New York Botanical Garden at Bronx Park. The upper floor is devoted to the department of zoölogy, which here has its large general undergraduate laboratory, two graduate laboratories, with rooms for special research, the library, and other purposes. A teaching collection of zoölogical specimens and models occupies the hallway. The work of this department is affiliated with that of the American Museum of Natural History, where large zoölogical collections are available for study.

To the west of Schermerhorn Hall and immediately behind the Library is **University Hall** (construction begun 1896. Architects: McKim, Mead & White). This building, which occupies the central position on the northern boundary of the campus, is, next to the Library, the largest of the University buildings, though still lacking some of its most important features, the cost of which is yet to be provided. Owing to the difference in grade between the campus and The Green, as the northerly portion of the site is designated, the building, though it is to be of the same height as those adjoining it, will have

two additional stories above the level of The Green. This space has been utilized in part for a gymnasium, which occupies the northerly portion of the well-lighted basement, and in part for the power plant, which occupies the southerly portion.

The **Gymnasium** is semicircular in form, with a floor space of 168 ft. x 113 ft. and a ceiling height of 35 ft. It is completely fitted with gymnastic apparatus and is largely used by students taking required courses in physical training, and by the students generally, as well as by many alumni to whom it is open on certain evenings in each week. The gymnasium is also frequently selected for intercollegiate athletic contests. On the story below is a swimming pool of white marble of semicircular form, 100 ft. x 50 ft.; and on the floor above are dressing-rooms with lockers, rooms for fencing, boxing, and wrestling; baths, handball courts, and the offices of the director of physical training. A running track, 12 ft. wide, is carried around the gymnasium as a gallery, having nine laps to the mile. On the floor above the track (the main floor of University Hall) is the Crew Room (303) which contains the rowing machines used by the various crews for practice during the winter months. There are three sets of these machines, so that three crews of eight men can be accommodated at the same time. On the walls of the room are hung the various trophies won by Columbia crews. The general attendance in the gymnasium and swimming pool for the year 1911-12 was more than 80,000 exclusive of spectators.

Owing to the fact that the University is not provided with a theater, the gymnasium is also used for Com-

THE GREEN



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mencements and other public functions, as well as for Class Day celebrations and similar social occasions.

A driveway, on the line of 119th Street, which passes through the building, separates the gymnasium from the POWER PLANT, which provides light, heat and power to all of the University buildings, with which it is connected by a system of subways built of brick, eight feet in diameter, through which the steam pipes and electric wires are conveyed. These tunnels also serve for the conveyance of books to the library and supplies to the several buildings. The power plant also supplies Barnard College, with which it is similarly connected. The present capacity of the plant is 2600 horsepower, and it consumes over 10,000 tons of coal per annum.

The UNIVERSITY COMMONS occupies the upper portion of the building fronting on the campus, having a seating capacity of about five hundred, and is largely used by the students. The present room, however, is only the fore-runner of what is intended to be Alumni Memorial Hall, a spacious and lofty hall, 164 ft. x 118 ft. x 76 ft., in which are to be placed memorial tablets of alumni, and which is to serve for alumni reunions, for meetings of the College Forum, and other gatherings, as well as a dining hall. The alumni have already contributed over \$100,000 for the erection of this portion of the building.

The plans of the building also include a University Theater, with a seating capacity of over 2500, which will provide a dignified and suitable place for Commencements and other large assemblages.

To the north of the central group of University buildings the land falls twenty-five feet, and the lower area,

which contains about three acres, is known as **The Green**. The semicircular apses of Schermerhorn, University, and Havemeyer project northward into this tract, but otherwise it contains no building except the Wilde astronomical observatory and transit house. Originally The Green was beautified by a grove of stately chestnut trees, but the deep excavations for the swimming pool underdrained the soil, and as a result most of the older trees have died. Much judicious planting has been done, however, and the younger growth affords shade and verdure. The Green is a favorite place for garden parties and other outdoor gatherings. During the Summer Session it is used for open-air plays and concerts; and when decorated in the evening with Japanese lanterns it is a picturesque sight.

The Green is surrounded by an ornamental iron fence with granite posts, two wrought-iron gates affording access. The northern gate, on 120th Street, designed by McKim, Mead & White, was the gift of the Class of 1882, and the western gate, on Broadway, designed by Thomas Nash (of the Class of 1882), was the gift of the Classes of 1890-92, College and Mines, and others, in memory of Herbert Mapes (of the Class of 1890), a prominent athlete and student leader. At the northeast corner is George Gray Barnard's well-known bronze of heroic size, the Great God Pan, set upon a granite exedra with a background of evergreens, the whole being the gift of Edward Severing Clark. The exedra and fountain were designed by McKim, Mead & White.

To the west of University Hall is **Havemeyer Hall** (erected 1896. The gift of Frederick C. Havemeyer,

Theodore A. Havemeyer, Thomas J. Havemeyer, Henry O. Havemeyer, Kate B. Belloni, Louisa Jackson, and Charles H. Senff. Architects: McKim, Mead & White).

**HISTORICAL NOTE.** The School of Mines, which was the first of its kind in this country, was founded in December, 1863, at 49th Street and Madison Avenue. In connection with it, courses of instruction have been developed in architecture, in analytical, organic, and industrial chemistry, in civil, electrical, and mechanical engineering, and in graduate work in pure and applied science. These have led to the establishment of the Schools of Architecture under its own teaching staff, schools of chemistry and engineering, in addition to the School of Mines, under the faculty of applied science, and a graduate school under the faculty of pure science. A summer school, known as Camp Columbia, at Morris, Connecticut, affords an opportunity for fieldwork (page 123). Originally the course of study was three years, but in 1868 a fourth year was added, and by recent action of the trustees the schools of applied science have been placed on the basis of graduate schools, three years of College training being required as a preliminary to three years of strictly scientific work. This requirement will go into effect in September, 1914.

**DESCRIPTION.** The building (205 ft. x 80 ft. x 100 ft.), which stands at the northwest corner of the Quadrangle, has been devoted, since the removal of the department of architecture, exclusively to the work in chemistry for which it was originally designed. Facing the entrance on the cross corridor, is a bronze bas-relief of Frederick C. Havemeyer (of the Class of 1825), in whose memory the building was erected by the donors, as set forth in an

inscription in bronze letters in the floor. On the right of the entrance stands a heroic bronze bust (executed by J. Scott Hartley and presented by the Chemists of America), of Professor Charles Frederick Chandler, for forty years head of the department of chemistry, and for thirty-three years dean of the School of Mines; and on the wall of the corridor to the left is a bronze tablet, executed by C. F. Hamann, commemorative of Hamilton Y. Castner (of the Class of 1878), distinguished for his invention of certain industrial processes.

The entire east wing on this floor is occupied by the CHANDLER CHEMICAL MUSEUM, showing in specimen form the evolution, not only of the science of chemistry, but of the chemical and allied industries. The rest of this floor is taken up by the administrative offices, lecture rooms, the science seminar, and a library of books and journals devoted to pure and applied chemistry. The two floors below the entrance are given over to the laboratories and research rooms in engineering and industrial chemistry, and to the laboratory of practical electro-chemistry, all of which are fitted up with apparatus for the study of older processes and the investigation of newer ones. These laboratories will be available for the holders of the industrial fellowships, supported by various corporations and manufacturers, for their work of investigation which, it is hoped, will contribute materially to industrial progress. The floors above the entrance are devoted almost entirely to pure chemistry. The second floor is divided between the sub-departments of organic chemistry and physical chemistry, with their laboratories and research rooms; while the third floor is devoted to analytical chemistry and to food chemistry.



**SCHOOLS OF ENGINEERING AND MINES**

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On the top floor are situated the laboratories and research rooms devoted to inorganic chemistry, grouped under the name, The NICHOLS LABORATORIES OF INORGANIC CHEMISTRY, in honor of Mr. William H. Nichols, honorary D.Sc., 1904, who gave a fund for their construction and equipment. On this floor are also the general supply rooms for chemicals and apparatus, which are connected with the various laboratories by means of dumbwaiters.

The department of chemistry is represented on all three of the faculties—College, applied science, and pure science—and chemical courses are given not only as required courses for all the various engineering degrees, and as electives for college students, but also to graduates who are candidates for the degrees of A.M. and Ph.D. In all, about eight hundred students a year receive instruction in chemistry. The papers embodying the research done in the various laboratories, published under the title, *Contributions from the Havemeyer Laboratories of Columbia University*, already number more than two hundred, and are being added to rapidly.

On the westerly side of the campus, adjoining Havemeyer Hall is The **School of Engineering** building (erected 1896. Architects: McKim, Mead & White. Size, 150 ft. x 57 ft. x 100 ft.). On the westerly wall of this building on Broadway is a bronze tablet with this inscription:

TO COMMEMORATE THE BATTLE OF HARLEM HEIGHTS,  
WON BY WASHINGTON'S TROOPS ON THIS SITE, SEPTEMBER  
16, 1776. ERECTED BY THE SONS OF THE REVOLUTION  
IN THE STATE OF NEW YORK.

DESCRIPTION. In the sub-basement are the bituminous

materials research laboratory and road materials testing laboratory of the highway engineering department; also the storage battery room and the supply room of the department of electrical engineering, as well as the gas engine room and stock supply room of the department of mechanical engineering. In the basement are the machine laboratories (direct and alternating current) of the electrical and mechanical engineering departments. On the main floor are the electrical engineering museum and two lecture rooms; the offices of the department of mechanical engineering, and the museum of the civil and mechanical engineering departments, the testing materials laboratory of the department of civil engineering, and one lecture room. On the second floor are the offices of the dean of the Faculty of Applied Science and the offices and drafting rooms of the department of civil engineering, a library, and a large lecture room. On the third floor are the instrument laboratory, the drafting rooms and offices of the department of electrical engineering, and a reference library. The fourth floor is devoted entirely to the first and second year drafting rooms and the offices of the department of engineering drafting. In the attic is a blue-print room with large rolling frame and tank.

South of the School of Engineering building and near the northeast corner of Broadway and 116th Street stands the **School of Mines** building (erected 1904. The gift of Adolph Lewisohn. Architect: Arnold W. Brunner).

**DESCRIPTION.** This building (145 ft. x 57 ft. x 100 ft.) has six stories, including basement and sub-basement, all of which, with the exception of three rooms, are occupied

by the departments of mining and metallurgy. In the floor of the vestibule is an inscription in honor of the donor of the building, and in the hall stands a bronze bust of Thomas Egleston, one of the founders of the School of Mines, by William Couper. On the left of the entrance is the MINING MUSEUM; on the right, the MUSEUM OF METALLURGY, and beyond these in turn are the three principal lecture rooms of the School; these are purposely so placed that, when passing to and from lectures, the students gain familiarity with the exhibits. The museums contain models of mines, mine plants, smelting furnaces, and metallurgical appliances, together with a collection of metallurgical products. Much of this material is used for lecture illustration.

On the two basement floors are the ore-dressing laboratories, provided with appliances for concentrating and testing ores on a small scale, and for crushing ores preparatory to treatment in the concentrating plant. These laboratories also contain a number of full-size concentrating machines, which are examples of the principal types of apparatus used in modern concentration works. By means of a circulatory system of automatic feeders, piping, centrifugal pumps, and de-watering apparatus, the same ore is used repeatedly, when the large machines are in operation, so that tests or runs of any desired duration can be made. On the second floor is a drafting room for the use of the fourth year students. Next to this is the reference library of the department of mining. At the southerly end of this floor is the non-ferrous and electro-metallurgical laboratory, containing roasting and crucible furnaces and amalgamating and bleaching apparatus, for dry and wet metallurgy. This apparatus

includes a chlorination barrel, and a well-designed small barrel-mill for conducting experiments on the cyaniding of gold ores. Adjoining this laboratory is the library of the department of metallurgy. The remainder of the floor is occupied by offices of the teaching staff of the School. The third floor is occupied entirely by the department of metallurgy. At the south end is the iron and steel laboratory, provided with electric and gas furnaces, pyrometers, and other apparatus, for experimental work and the heat treatment of iron and steel. Next are several rooms devoted to metallographic work, for which there is an ample equipment of microscopes of various types, high-power photographic apparatus, and recording instruments. The remainder of the floor is taken up by an analytical laboratory, dark-rooms for photography, and officers' studies. On the fourth floor at the southerly end are the assay laboratories. These include complete outfits of gas muffles and laboratory desks for thirty-four students; also, separate rooms for crucible furnaces and western coal-fired muffles, a room for the preparation of assay charges, and a weighing room provided with a number of balances.

In front of the School of Engineering there is an old brick building known as **West Hall**, soon to be removed, and now temporarily occupied by the department of anthropology, the University Book Store, and the offices of three of the student publications, *The Spectator*, *The Jester*, and the *Columbia Monthly*.

Between the School of Mines and the School of Engineering and in a position corresponding to St. Paul's

**METALLURGICAL LABORATORY**



1901

Chapel on the eastern side of the Quadrangle is **Earl Hall** (99½ ft. x 58 ft. x 102 ft. Erected 1900. The gift of William Earl Dodge. Architects: McKim, Mead & White). The inscription over the door, GIVEN TO THE STUDENTS THAT RELIGION AND LEARNING MAY GO HAND IN HAND AND CHARACTER GROW WITH KNOWLEDGE, explains the purpose of the building. Earl Hall is, by the expressed wish of the donor, under the charge of the Columbia University Christian Association (directly affiliated with the city, State, and international Young Men's Christian Associations). The general secretary of the Association acts also as secretary of Earl Hall, and as such is one of the administrative officers of the University. The policy of the Association has been to throw open the use of the Hall to all students and student organizations, and as a result it has become the center of all student activity—social and athletic as well as religious, ethical, and philanthropic. It serves under the management of the Association as a general student club-house.

**DESCRIPTION.** On the main floor are the lobby, reading room and library containing the Dibblee collection, Bible class and committee room, office of the chaplain of the University, office of the general secretary, and offices of the Christian Association. A general information bureau is maintained here. The Association also maintains a board and room directory—open to students free of charge—in which is registered a selected list of boarding and rooming places in the vicinity of the University. The University **TROPHY ROOM** also has accommodation here, and the walls are hung with athletic

banners and photographs. In the corridor may be seen the shell used by the Columbia Crew of 1878—the only American crew which has ever won a race at the English Henley. A case also contains a large number of loving-cups, prizes, souvenir footballs and other trophies of athletic victories. At the entrance to the reading room stands a bronze bust of Washington,—a replica of a bust by Houdon—and the gift of Dr. Coles (of the Class of 1864).

On the second floor of Earl Hall there is a large auditorium used for services, lectures, conventions, debates, play-rehearsals, concerts, recitals, mass-meetings, class-meetings, dances, receptions, and other functions. There are also two small rooms used for Bible classes and committee meetings. In the lobby hang portraits of William Earl Dodge, the son of the donor and in whose memory the Hall was given; Frederick A. P. Barnard, President 1864–89, painted for the Trustees by Eastman Johnson in 1886; and Seth Low (of the Class of 1870), President 1890–1901, painted by Daniel Huntington, and presented by Mr. Low at the invitation of the Trustees in 1899.

The basement of Earl Hall contains a billiard room, an office for the secretary, a small room for Bible-class and committee meetings, and a large office occupied by the Athletic Association and the managers of the various athletic teams. In this room or in other parts of the Hall are also the desks of the student managers of the Varsity and Sophomore Shows, Dramatic Association, and other student organizations. A rear door opens on Broadway at 117th Street.

The red brick building at the northeast corner of

Broadway and 116th Street, which was acquired by the University on the purchase of the site, is occupied by the **Faculty Club**. The main floor has two dining-rooms, with pantry, coat-room, and office; the second floor, two additional dining-rooms and a reading-room with writing-tables and chess tables; the third floor, five bedrooms. The wide porch on two sides commands most attractive views of the campus. Organized primarily as an officers' mess, the Faculty Club has become such a center of social intercourse that in summer and winter alike it is taxed to its capacity; not only at the mid-day lunch hour, but on many other occasions for dinners of the various faculties, of alumni organizations, and of other bodies. As the one place where the members of all departments are brought together informally and in close personal relations, the Club is an important feature in the life of the university.

**Memorials** presented on graduation or at anniversaries by the following classes:

Class of '74, College	Clock, bronze supports, and columns in Reading Room of Library.
Class of '77, College	Portrait of Alexander Hamilton.
Class of '80, College and Mines	Wrought iron doors, Hamilton Hall.
Class of '81, College, Mines, and Political Science	Flagpole with granite and bronze base.
Class of '81, College and Mines	"The Gemot" Hamilton Hall.

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| Class of '82, College                                  | Wrought Iron Gate, 120th St.                                   |
| Class of '82, College                                  | Stained glass window, College Study.                           |
| Class of '82, Mines                                    | Bronze torchères in front of School of Mines.                  |
| Class of '83, College,<br>Mines, and Political Science | Bronze torchères in front of Chapel.                           |
| Class of '84, College                                  | Marble doorway and clock, Dean's office, Hamilton Hall.        |
| Class of '84, Mines                                    | Improvement of South Field for athletic purposes.              |
| Class of '85, Mines                                    | Fund of \$8200, for a fellowship in Applied Science.           |
| Class of '85, College                                  | Stained glass window "Sophocles," Hartley Hall.                |
| Class of '85, College                                  | Granite Sun Dial in form of globe to be placed on South Field. |
| Class of '86, College                                  | "American Literature Library" 300 vols.                        |
| Class of '86, Arts,<br>Mines, and Political Science    | Marble Exedra in front of Chapel                               |
| Class of '87, College                                  | Well-Head in front of Philosophy Building.                     |
| Class of '87, Mines                                    | Loan Fund of \$7200 for students in Science.                   |
| Class of '90-92, College and Mines                     | Mapes Memorial Gate, Broadway and 119th Street.                |
| Class of '91, College                                  | Stained glass window "Vergil" Hartley Hall.                    |



MAPES MEMORIAL GATE

1900

Class of '99, College and Mines	Improvement of South Field for athletic purposes.
Class of '00, College and Applied Science.	Power Launch "1900."
Class of '01, College and Applied Science	For Endowment of Committee on Employment for Students.
Class of '02, College	Painting "The Round Table of King Arthur," Hartley Hall.
Class of '05, Law	Portrait of Chancellor Kent in Kent Hall.
Class of '10, College	Collection of Engravings Ham- ilton Hall, "Dean Van Amringe Fund."
Class of '12, Law	Clock in Kent Hall.

## SOUTH FIELD

The two blocks of ground lying immediately in front of the Library and extending from 116th Street to 114th Street and from Broadway to Amsterdam Avenue, popularly known as **South Field**, were purchased in 1902 as an addition to the original site through the assistance of alumni and friends of the University, among whom Mr. James Speyer was prominent. Plans have been made and models prepared for the erection of buildings on the property to form a large quadrangle surrounding an athletic field. Of these buildings, Hamilton, Hartley, and Livingston Halls have been erected, and the School of Journalism is now in process of construction at the southeasterly corner of Broadway and 116th Street. A third dormitory to be known as "Furnald Hall" is now being erected on Broadway, adjoining the School of Journalism, and the entire system of dormitories when completed as planned will accommodate two thousand students. The athletic field and quarter-mile running track which now occupy this center portion of the field were constructed at the expense of the Classes of 1884 and 1899, and are used for the physical exercise courses prescribed for underclassmen, as well as for general athletic sports. There are also tennis-courts.

In the center of the north side of South Field is a



**SOUTH FIELD, HAMILTON HALL, AND THE DORMITORIES**

1900

Sun-Dial (the gift of the Class of 1885), erected in 1912. The inserts on the base, which were designed and prepared under the direction of William Ordway Partridge (of the Class of 1885) are arranged in the following order: Torches of the Morning; Increase of the Dawn; Chanticleer; Sun Rise; Love Awakening; Boiling the Pot; Love Crowning the Hours; Love at Play; Love Tempers the Night Wind; The Evening Star; Love Piping to the Moon; and Voices of the Night. They represent the cycle of one day, beginning with very early morning and ending in the fullness of the night.

At the northeast corner of South Field extending along 116th Street to Amsterdam Avenue is **Hamilton Hall** (erected 1906. The gift of John Stewart Kennedy, a trustee of the University, 1903-1910. Architects: McKim, Mead & White). This building was erected to provide a permanent home for Columbia College, out of which and around which the whole University has developed. Columbia College is for men only, the corresponding school for women being Barnard College (page 82). It has a faculty of forty-five men, assisted by fifty-seven other officers of instruction, and an enrollment of about eight hundred students. Its normal course covers the customary four years' studies of freshman, sophomore, junior, and senior years, but under special conditions the required work can be taken in less time, and, after completion of certain prerequisite college studies, students are permitted to take courses in the professional schools of the University as part of the requirement for the degree of bachelor of arts or bachelor of science.

**DESCRIPTION.** Hamilton Hall was the last of the University group to be designed by the late Charles F. McKim, and was opened to students in 1907.. Its dimensions are 208 ft. by 55 ft. The building has four floors, containing class rooms with over 2000 sittings, and officers' studies, as well as the offices of the dean. It contains also the College Study, which is a library for undergraduates, and the Gemot, a social hall for the students, handsomely furnished by the Class of 1881.

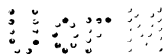
The entrance is on South Field. Immediately in front of the triple doorway, with its ornamental iron grills (presented by the Class of 1880), is a bronze statue of Alexander Hamilton, who was a student in King's College from 1774 to 1776, and in honor of whom the building is named. The statue was designed by William Ordway Partridge (of the Class of 1885); and was the gift of the Association of Alumni of Columbia College. Above the grills are carved the seals of King's College, the Regents of the University, and of Columbia College, representing three historic periods. These also were presented by the Alumni Association. The corner-stone bears an inscription, which is a paraphrase of the inscription on the corner-stone of King's College, (p. 20) and reads as follows:

HUIUS COLLEGII OLIM REGALIS NUNC COLUMBIAE DICTI  
REGIO DIPLOMATE AN DOM MDCCLIII CONSTITUTI IN  
HONOREM DEI OPTIMI MAXIMI ATQ IN ECCLESIAE REIQ  
PUBLICAE EMOLUMENTUM PRIMUS HIC LAPIS POSITUS EST  
SEPT. DIE XXVII AN DOM MDCCCV.

*(This first stone of this College, once called King's now*



**ALEXANDER HAMILTON**  
OF THE CLASS OF 1777



100

*Columbia, established by royal charter Anno Domini 1754 to the honor of Almighty God and the advancement of Church and State, was laid September 27, Anno Domini 1905).*

In the vestibule of Hamilton Hall is a bronze bust of the donor of the building, the late John Stewart Kennedy, a member of the Board of Trustees (1903-1910), whose generosity is suitably commemorated by an inscription inlaid in the floor. There are also in the vestibule a bust of Dean Van Amringe, executed by Mr. Partridge, recently presented by the alumni, and two bronze replicas of classical heads, the gift of J. Ackerman Coles, M.D. (of the Class of 1864): Apollo Belvedere, a copy from the head of the marble statue in the Vatican, given in 1907 in memory of Alexander Hamilton (of the Class of 1777) and Gaius Octavius Cæsar Augustus, a copy from a marble statue in the Vatican found at Prima Porta, presented in 1904 as a memorial to President Charles King, Professor Anthon, Professor Drisler, and other members of the Faculty whose lectures were attended by the class of 1864. Immediately facing the entrance is the dean's office, and the central feature of the elaborate architectural treatment of the entrance hall is a carved marble doorway and clock (the gift of the Class of 1884). At the time of its presentation, the dean of Columbia College was John Howard Van Amringe (of the Class of 1860), and this gift, as well as the bust above mentioned, are fitting expressions of the affection and esteem in which he is held by the alumni at large. The walls of the dean's office are hung with an interesting and valuable collection of historic portraits and autograph letters presented by the Alumni Association.

The rest of the ground floor is devoted to class-rooms and to the offices of the department of mathematics. In the basement is the GEMOT, already referred to, and the coat-rooms. On the floor above, at the east end, is the COLLEGE STUDY, a well-lighted room, containing a good working library, with long oak tables for the undergraduates, for whose use there is a special collection of the books needed in the College courses. The east window of the study, executed by Maitland Armstrong & Co., is in stained-glass, and bears the seal of the College (the gift of the Class of 1882). The room also contains a collection of casts, and the following portraits: Charles Anthon (of the Class of 1815), Jay professor of Greek language and literature 1857-67, painted for the Trustees by John W. Ehninger in 1867; William Cochran, professor of Greek and Latin, 1784-89, painted by John Trumbull, and presented by him to the College in 1821; Lorenzo Da Ponte, professor of Italian language and literature 1826-37, painter and source unknown; Charles Davies, professor of mathematics of 1857-65, painted by Jos. O. Eaton for the Trustees in 1866; Henry Drisler, Jay professor of Greek language and literature 1867-94, painted for the Trustees by Daniel Huntington in 1890; John Kemp, professor of mathematics and natural history 1799-1812, painter and source unknown; John McVickar, (of the Class of 1804) professor of evidence of natural and revealed religion, painted for the Trustees by J. O. Eaton, 1866; and John Howard Van Amringe, (of the Class of 1860), Dean of Columbia College 1896-1910, painted by Eastman Johnson, and presented to the University by the Association of the Alumni of Columbia College. In Room 301 are portraits of Robert Adrain,

professor of mathematics, natural history, and astronomy, 1813-25, painter unknown—possibly Vanderlyn, presented by the Class of 1823; Henry James Anderson (of the class of 1818), professor of mathematics and astronomy 1825-43, Trustee 1851-75, painted for the Trustees by J. O. Eaton in 1866; John Bowden, professor of moral philosophy, 1801-17, presented in 1822 by the alumni of the College; Charles Murray Nairne, professor of moral and intellectual philosophy and literature 1857-81, painted by Thomas Le Clear for the Trustees in 1881; Henry Immanuel Schmidt, professor of German language and literature 1848-80, painted for the Trustees in 1880 by Jacob Lazarus; and Peter Wilson, professor of Greek and Latin 1789-92, painter not known, presented by the alumni in 1822.

On the walls of the stairs and hallways is hung a collection of framed engravings, views by Piranesi of ancient Rome, and appropriate portraits. These have been purchased from the Dean Van Amringe Fund (raised in 1910 by general undergraduate subscription in honor of the retiring dean).

The remainder of the building contains the departments of modern languages, English, philosophy, economics, and politics. The laboratories for work in history and politics, now on the top floor, but soon to be moved to the School of Journalism, deserve special attention, as showing how modern teaching of the older subjects in the College program has been revolutionized by the example of the more recently included natural sciences. The history laboratory, well-equipped with works of reference, newspapers, and reviews, has been used for

some time in connection with a course on Europe in the nineteenth century, and the results derived from the study of newspaper clippings are as actual and definite as those obtained from cracking rocks or heating test tubes. The **POLITICS LABORATORY** has been supported for two years by the Hon. Patrick F. McGowan of New York. Ballots, election laws, legislative manuals, city charters, departmental reports, and much other material are being placed at the disposal of the one hundred and fifty students who are taking the undergraduate courses in politics. Problems and methods of government are made concrete, when an English ballot with two names upon it is placed beside a Colorado ballot covering several pages of a newspaper. The laboratory is also useful to teachers of civics in the city schools.

To the south of Hamilton Hall, at right angles to it and extending along Amsterdam Avenue, are two dormitories or residence Halls: **Hartley Hall** and **Livingston Hall** (both erected 1904. Architects: McKim, Mead & White).

The students of King's College not only recited and studied in the College building, but were housed and fed therein. In the early announcements there are many quaint references to the house rules of the time and to their enforcement by an elaborate system of fines, but about 1800 the College ceased to be a place of residence except for the president and a few professors. It was not until more than one hundred years had passed that Columbia again became a residential institution. This was made possible by the gift in 1903 of \$350,000 for the erection of Hartley Hall, named in memory of the

late Marcellus Hartley of New York, the father of Mrs. Helen Hartley Jenkins and the grandfather of Mr. Marcellus Hartley Dodge (of the Class of 1903), the donors. The Trustees voted an equal amount from the general funds of the University for a companion building, named Livingston Hall, in memory of Chancellor Robert R. Livingston (of the Class of 1765). The Halls were opened to students in the fall of 1905.

**DESCRIPTION.** The entrance to each Hall is from South Field and leads directly into a large assembly room sixty feet square. This room extends through two stories and has a large open fireplace opposite the entrance. It is furnished in heavy leather-covered oak, like a club room and serves as a general assembly hall for the residents. At one side of the main entrance is the office of the Hall, and on the other a reception-room.

Each Hall is 137 ft. x 61 ft. and contains three hundred rooms, all with outside light and exposure, lighted by electricity and heated by steam. The rent of the rooms (which are completely furnished by the University), for the academic year of forty weeks, ranges from \$100 to \$180 for single occupants. In many cases the rooms are rented in suites with a common study.

The assembly room of Hartley contains decorative glass windows representing Sophocles and Virgil, the graduation gifts of the Classes of 1885 and 1891, respectively, which were brought from the library at Forty-ninth Street. The corresponding room in Livingston contains a decorative window, the central feature of the design being a medallion portrait of the Chancellor, presented by members of the Livingston family. There are also in the assembly room in Hartley the following

portraits besides one of Marcellus Hartley: Alexander Hamilton, LL.D., (of the Class of 1777) Trustee 1787-1804, copied by Mrs. James H. Canfield from the original by John Trumbull in the possession of the Hamilton family, presented in 1905 by the Class of 1877; John Jay, LL.D., (of the Class of 1764), a copy by Mrs. James H. Canfield from the original by Gilbert Stuart and presented by Mrs. Canfield in 1904; Gouverneur Morris (of the Class of 1768), Trustee 1805-1816, painted by Thomas Scully, loaned by the Morris family.

In the assembly room of Livingston are portraits of John D. Ogilby (of the Class of 1829), a copy by C. L. Elliott from the original by Copley in the possession of Trinity Church; Daniel D. Tompkins (of the Class of 1795) Governor of New York and Vice-President of the United States; De Witt Clinton (of the Class of 1786), Governor of New York; and Rev. Manton Eastburn (of the Class of 1817), lecturer on poetry (1830).

In accordance with the wishes of the donors, undergraduate students are given preference in the assignments of rooms in Hartley Hall, and as a result they are concentrated in that building, while the older students and junior officers are generally housed in Livingston. The five hundred residents of these buildings form a nucleus which has added much to the student life of the University. Their various doings are recorded in a weekly newspaper entitled *The Dorms*. There is a pleasant rivalry between the two Halls which results in various informal athletic contests, and social affairs, one of the latter being the annual lighting of the Yule Log on Christmas Eve.

In striking contrast to the paternalism of the King's College days, the Halls are practically self-governing. The house rules are of the simplest, the internal administration of each building being in the hands of a Hall Committee consisting of a resident elected from each floor. For weightier matters, there is a council made up of representatives from the Hall Committee and three officers of the University. The health of the residents is under the immediate care of the University physician.

A new dormitory, to be known as **Furnald Hall**, is in course of erection on South Field, fronting on Broadway and adjoining the School of Journalism. The building is the gift of Francis P. Furnald, Jr. and his wife, Sarah E. Furnald, and is a memorial of their son, Royal Blackler Furnald, who was a member of the Class of 1901, Columbia College. In size and general appearance the building will resemble Hartley Hall, except that it will have a light basement, which will be fitted up with dressing-rooms, lockers, and showers for the use of athletic teams. It will accommodate about 300 students and is expected to be ready for occupancy in September, 1913.

The building of the **School of Journalism**, which is to occupy a site at the northwest corner of South Field on 116th Street and Broadway, is now in process of construction, the funds for the erection of the building and the endowment of the School having been provided by the gift and bequest of Joseph Pulitzer (Architects: McKim, Mead & White). The purpose of the donor as expressed by him was to "establish a School of Journalism which

will furnish technical and professional instruction in journalism." A course of instruction has been formulated by a Committee of the Faculty, acting in cooperation with an Advisory Board composed of representative journalists, and approved by the Trustees, and the School has been placed under the charge of an administrative board. Instruction will be commenced in September, 1912, though the building will not be completed until the following year. The building will be constructed of brick and Indian limestone, and in size and general architectural design will resemble Hamilton Hall. The entrance will be on the south front, consisting of three doors grouped under a portico of massive columns and opening into a spacious vestibule. The building will be four stories in height and will contain a library similar to the College Study, but containing a collection of books selected with especial reference to the needs of students of journalism, a newspaper reading-room, containing files of all the more important papers, and a number of lecture-rooms and offices. The University book store and a press-room will occupy space in the basement.

## EAST FIELD

The lower half of the block to the east of the Quadrangle, and bounded by 116th and 117th Streets, Amsterdam Avenue, and Morningside Avenue, was purchased in 1910. On the northwesterly corner of Morningside Avenue and 116th Street an official **Residence for the President** of the University was erected in 1912. It occupies a site 100 ft. x 50 ft. and overlooks Morningside Park. The architects were McKim, Mead & White, and it is similar in material and architecture to the other buildings of the University, but more domestic in character. It will constitute the center of the social life of the University. Pending the permanent development of the remainder of the block a green-house has been erected for the use of the department of botany, and a tennis-court has been laid out.

On the north side of 117th Street, between Amsterdam Avenue and Morningside Park, are a number of dwelling-houses, most of which are used or occupied directly or indirectly for academic purposes. Four of the houses are the property of the University. The Chaplain of the University (No. 413) and the Dean of Columbia College (No. 415) are provided with residences which enable these officers to come into closer social contact

with the students than would otherwise be possible. The **Deutsches Haus** (No. 419), the gift of Edward D. Adams, is a center of Germanic culture. It contains a bureau of academic information, an excellent library of contemporary German literature, and a reading-room equipped with the leading German magazines and newspapers and a valuable collection of clippings; it is the headquarters of the Germanistic Society of America, and is provided with a suite of rooms for the resident Kaiser-Wilhelm professor, who comes to Columbia upon nomination of the Prussian ministry of education, and also for the annual guest of the Germanistic Society. The editorial rooms of the *Columbia University Quarterly* are also in this building. The fourth house (No. 407) is at present occupied by the Carnegie Endowment for the Advancement of Peace, for which President Butler is acting as director, and by the American Association for International Conciliation. There are also in the row the private residences of several University officers, and the chapter houses of two Greek-letter fraternities.

## STUDENT AND ALUMNI ORGANIZATIONS

**Student Board of Representatives**, composed of nine members elected by the students from the various schools. It aims to express the opinion and wishes of the students, to regulate and control student activities, and to act as a medium between the students and the University authorities.

**College Forum** is an informal organization composed of the Faculty and students of Columbia College meeting from time to time to discuss questions affecting the interests of the College and the students.

**Kings Crown** is the general society of undergraduates having for its object the fostering of Columbia spirit and the promotion of social intercourse between the students of the different Schools. Hereafter it is also to exercise a supervision over all non-athletic activities. At its regular meetings addresses are delivered by prominent alumni and others and matters of University interest are discussed.

**Columbia University Athletic Association** represents and supervises all branches of athletics and is charged with the raising and disbursement of funds for the sup-

port of all the teams. Membership in the Association is open to all students and alumni (Annual dues \$10) and gives admission to all home games and contests, and to the privileges of the rowing club. It is under the direction of a Board composed of students and alumni, and a Graduate Manager has charge of its funds. Subsidiary associations represent special interests, such as rowing, baseball, basket-ball, soccer foot-ball, track athletics, wrestling, and swimming. On the shore of the Hudson, opposite 115th Street is the **Boat-house** (101 ft. x 50 ft. x 35½ ft. Erected 1895. The gift of Edwin Gould of the Class of '88, School of Mines. Architect: Henry C. Pelton). It is reached from Riverside Drive by a path through the park and a bridge across the tracks of the New York Central railway. The lower floor contains racks for the shells, canoes, and other craft, and the upper floors are devoted to dressing- and bathing-rooms. There is an upper veranda from which a splendid view of the Hudson can be obtained. Owing to the prevailing northwest wind, the Varsity and Freshman crews do their training on the west side of the river in the lee of the Palisades and have quarters at Edgewater on the New Jersey shore. The boat-house therefore is used mostly by individual oarsmen and canoeists and, particularly in the spring months, as a student meeting place.

**Columbia University Christian Association** is directly connected with the Y. M. C. A. and carries on the work of that organization in connection with the University. Its offices and rooms are in Earl Hall (page 55) where it



SCHOOL OF MINES AND EARL HALL

1701

holds receptions, teas, and other social meetings for the students, maintains a Board and Room Directory, holds classes for Bible study, mission and welfare work, stenography and typewriting, and first aid to the injured. The Association cooperates in the work of various settlements and Boys' Clubs and in visiting city institutions, and in Summer transfers its activities to Camp Columbia (page 123). Other organizations of like character but formed for special purposes are:

The **Churchman's Association**, the **Newman Club**, and a Chapter of the **Brotherhood of St. Andrew**.

#### LITERARY AND DRAMATIC SOCIETIES

**Phi Beta Kappa**, the oldest of American literary societies, was founded at William and Mary College in 1776 and organized a chapter at Columbia in 1869. Its membership is limited to students of the highest rank in scholarship.

**Delta Sigma Phi** was formed to encourage "Sincere and effective public speaking."

**Philolexian Society**, founded in 1802, meets weekly for the reading of papers, and for debating. It also conducts the competitions for the George William Curtis medals and has rendered several old English plays.

**Peithologian Society**, founded in 1806, has for its object literary discussion and the promotion of a literary spirit on the Campus.

**Barnard Literary Association** was organized in 1877 and holds weekly meetings for social and literary purposes and for debating. It has also given several Irish plays.

**The Scribblers** was formed in 1908 to stimulate literary compositions among undergraduates, and meetings are held fortnightly for the reading of papers.

**Columbia University Players** is the dramatic association of the University and gives annually a play or musical comedy written and composed by undergraduates.

#### MUSICAL SOCIETIES

**Glee Club**, composed of about thirty men, is under the control of the University, and affords training in vocal music under competent direction. The club gives annually a number of concerts.

**Mandolin Club** is under the same general management and gives concerts in cooperation with the Glee Club.

**Notes and Keys** was founded in 1909 to exercise a general supervision over the musical clubs and to encourage college singing. To this end it offers annually a silver cup which is competed for by the different classes.

**Philharmonic Society** is a general musical society and maintains the Philharmonic Orchestra, which is conducted by the Professor of Music, and furnishes the music at all University functions, besides giving one or more concerts each year.

#### SOCIAL CLUBS

**Deutscher Verein** is composed of the students and officers interested in German and holds frequent social meetings and gives plays in German.

**La Société Française** is of similar character but is devoted to the interests of French in the University.

**The Politics Club** seeks to arouse interest in civics and



UNIVERSITY BOAT-HOUSE

WnoU

to inform its members in the problems of practical politics. Monthly meetings are held for addresses on political topics and discussion.

**Western Club** includes men and women and exists "to promote the Western brand of good fellowship."

**Women's Graduate Club**, composed of women graduate students, occupies rooms in the Philosophy Building, where tea is served on several afternoons each week, and where social meetings are held. The Club exercises a general care over the interests of women students and assists them to obtain employment when desired.

**Women's English Club** of women students and officers interested in the study of English, meets fortnightly for the reading and discussion of papers.

**Men's English Club** of men students and officers in the same department, has like purposes.

**Latin American Society**, composed of students from Mexico, Cuba, Central and South America, is a literary and social organization and gives plays in Spanish.

**Chinese Club**, composed of students from China, is of similar character, recently organized, and has given a successful performance.

**Ottoman Club** of students from Eastern Europe and Asia, is a social and literary organization.

**Pulitzer Club** is composed of press representatives, its object being to maintain an *esprit du corps* among the newspaper correspondents of the University and prevent the circulation of unauthorized or garbled reports of University affairs.

#### STUDENT PUBLICATIONS

**The Spectator** is the daily newspaper of the University

and contains reports of all current events and editorial comment. The office of the paper is in the basement of West Hall. Subscription \$2.50 if paid before November 1st; \$3.50 if paid after that date.

**Columbia Monthly**, the undergraduate literary magazine of the University, contains essays, short stories, poems, and book reviews. It aims to give expression to the best literary efforts of the student body. Annual subscription \$1.

**The Jester** is an illustrated comic paper, and aims to satirize University happenings by humorous comment, jokes, and drawings.

**The Dorms** is a weekly publication issued in the interest of the men living in the dormitories.

**Columbia Law Review**, a monthly conducted by the students of the Law School, containing papers on legal questions carefully prepared by the editorial staff and members of the Bar, and comment and discussion of recent decisions.

**The Columbian** is an annual publication in handsome book form issued by a board of editors from the junior classes of College, Science, and Architecture, containing a compendium of University events of the year, personal notices of members of the classes, and membership lists of the fraternities and other organizations.

#### SCIENTIFIC SOCIETIES

**Engineering Society** endeavors to advance original work and study among engineering students, and its meetings are devoted to informal lectures and discussions.

**Senior Mining Society**, founded in 1902, aims to keep its members in touch with the most recent theories and practices of mining engineering.

The **Electrical Engineering Society**, the **Mechanical Engineering Society**, and the **Civil Engineering Society** are organized for similar purposes in their respective fields.

**Columbia University Architectural Society** exists for social purposes and the discussion of questions of architectural problems of design and construction and the dissemination of information as to advanced methods of building.

**The Fraternities.** A directory of the men's fraternities having chapters in the University will be found on page 129.

#### ALUMNI ORGANIZATIONS

**Alumni Council** was established in 1895 "to extend the knowledge of the University and its work; to establish closer relations between the alumni and the University, by aiding the formation of alumni associations and otherwise; to represent the alumni generally in matters in which all of the schools of the University are concerned; to take charge of general meetings of the alumni of the University; and to further such measures as in its judgment will tend to promote the interests of the university in its several parts." The Council also keeps the official record of alumni associations, of which there are forty-five, in this country, Europe, and Asia, and arranges for meetings of representatives of the committee to nominate Alumni Trustees. A list of the associations

is published from time to time in the **Columbia Alumni News** which is issued weekly by the Council during the Academic year. The Council is composed of fifteen members appointed by the Alumni Associations of the College, Law, Medicine, Applied Science, and Philosophy, and its officers are John Howard Van Amringe, '60, Chairman; William C. Demorest, '81, Vice-Chairman; Gustavus T. Kirby, '95, Treasurer; George Brokaw Compton, '09, Secretary. Office of the Council and of the *Alumni News*, Room 311, East Hall. Visiting alumni are invited to call at the office and register.

**Columbia University Club**, No. 18 Gramercy Park, incorporated on September 30, 1901, its special purpose being to promote social intercourse among its members, to further the interests and in general to uphold the influence of Columbia University. Every man who has received a degree from the University, incorporated as "The Trustees of Columbia College in the City of New York," or who has been a regular or special student for at least one year and whose class has graduated or who has been an officer of the University for at least one year, is eligible to membership.

The Club owns and occupies a spacious club-house, situated on the corner of Irving Place and 20th Street, fronting on Gramercy Park, which serves as a meeting place for numerous alumni organizations as well as for the members. A club dinner is held monthly, followed by music and informal illustrated talks by members of the University on explorations, scientific discoveries, etc.; and most of the class dinners are given in the Club. In summer meals are served in an open-air dining-room.

Two squash courts afford opportunity for exercise, and a number of bedrooms provide accommodations both transient and permanent. The Club numbers 1267 members. The present officers are President, John Howard Van Amringe, '60; Vice-President, James Duane Livingston, '80; Secretary, Perry D. Bogue, '06; Treasurer, J. H. Heroy, '02.

## BARNARD COLLEGE

**HISTORICAL NOTE.** Higher education for women owes its origin at Columbia very largely to President Frederick A. P. Barnard, who in 1879 became its advocate and whose efforts resulted, in 1884, in the establishment of a Collegiate Course for Women. This was followed, in 1889, by the incorporation of Barnard College as a distinct institution, but closely related to Columbia, through the instruction of its students by Columbia professors and the awarding to them of Columbia degrees. The College was established at 343 Madison Avenue and remained there for several years, but accompanied the University on its removal to Morningside Heights, and since then has developed with remarkable rapidity, both physically and educationally. In 1900, a closer alliance between Barnard College and the University was effected, by which the College became part of the educational system of the University and under its administration, though still retaining its corporate identity. At the present time Barnard is an undergraduate College for women in the same sense that Columbia College is an undergraduate College for men and under the same general educational control, each College having its own faculty and conducting its undergraduate courses independently of the other. In graduate work the Univer-



**BARNARD COLLEGE**

8700

sity makes no distinction between men and women, and women are admitted to graduate courses on the same footing as men. All degrees are conferred by the University.

Barnard College is situated on Broadway, immediately west of the University and occupies the land extending from 116th to 120th Street, partially enclosing **Milbank Quadrangle**, the gift of Mrs. Elizabeth Milbank Anderson, and named in her honor. The land is historic, as it is the exact site, so far as historians have been able to determine, of the "buckwheat field" upon which was fought the Battle of Harlem Heights, the first in which Washington's troops defeated the British, on September 16, 1776, and the event is commemorated by a tablet on one of the University buildings on Broadway, which was formerly known as the Bloomingdale Road. Eventually the quadrangle is to be surrounded by buildings, but at present it serves as a garden and athletic field and for tennis-courts. A bronze sun-dial was the gift of the Class of 1907, and a marble bench is the memorial of the Class of 1909. The rows of Norway maples were given by the Class of 1910, and the flag-pole by the Class of 1911. At the northerly end of the site on 119th Street are situated the three academic buildings of the College, thus far erected, comprising Milbank, which forms the center, and Fiske and Brinckerhoff, which are connected with it as wings. All of these buildings are built of over-burned brick, Indiana limestone, and terra cotta, in the style of the Renaissance.

**Milbank Hall** (erected 1896. The gift of Mrs. A. A. Anderson in honor of her parents. Architects: Lamb &

Rich). The building (119 ft. x 65 ft. x 84 ft.) is entered through a pillared hall, paved in marble, which leads on the left to the offices of the dean, the secretary, and the bursar of the College, and on the right to the offices of the provost and registrar, and to the Trustees' Room. The walls of this hall are hung with a collection of Piranesi engravings, the gift of Mrs. A. A. Anderson, and several casts of sculpture by Florentine artists of the fifteenth and sixteenth centuries. In a niche is a cast of Verocchio's David, beside which hangs a bas-relief of a Madonna and Child by Benedetto da Majano. At the foot of the staircase is another bas-relief of a Madonna by Mino da Fiesole, and on the first landing is a bas-relief of the Ascension by Lucca della Robbia, and another group from a tympanum in the church of San Jacopo di Ripoli at Florence. The two fragments of a frieze, on the same landing, are from the Forum of Trajan. In the Trustees' Room are a bust of the Reverend Arthur Brooks, the first chairman of the Board of Trustees, and portraits of Miss Laura Drake Gill, dean of the College from 1901 to 1907, of President Frederick A. P. Barnard, and of Mr. Silas B. Brownell, chairman of the Board of Trustees of Barnard College, painted by his daughter, Miss Matilda Brownell. In this room is hung also a plan of the proposed buildings.

On the second floor are the ELLA WEED READING-ROOMS, occupying four large rooms on the north side of the corridor. The first of these rooms was equipped by the Associate Alumnae of Barnard College as a library and dedicated to the memory of Miss Ella Weed, trustee and chairman of the Academic Committee from the founding of the College until her death in 1894. A tablet over

the fireplace records the memorial. The room to the east was equipped by the Class of 1903, as is stated by a tablet on the east wall. The reading-room contains about seven thousand volumes, a large number of which have been given by the Classes of 1901, 1903, 1904, and 1905. The periodical case, in which is kept a fairly complete file of the most important of modern periodicals in English, French, and German, was the gift of the Class of 1900. On the same floor are also the freshman, junior, and senior studies, decorated with the banners, pictures, and trophies of the three classes. The third floor is devoted entirely to recitation rooms and to the offices of the departments of economics and mathematics. On the fourth floor are the laboratories and offices of the department of zoölogy, also a large laboratory for the elementary course and a smaller one for advanced work in physiology.

Connecting with Milbank on the east is **Brinckerhoff Hall** (166 ft. x 55½ ft. x 78 ft. Erected 1896. The gift of Mrs. Van Wyck Brinckerhoff. Architects: Lamb & Rich). Part of the building is occupied by a **THEATER**, two stories high, with a gallery, having a seating capacity of about five hundred, and much used by the students for plays as well as for other College functions. Outside the door of the theater is placed a bronze tablet, erected in 1909 by the American subscribers to the Memorial Fund for Mrs. Craigie, the English novelist. The tablet shows a bas-relief portrait of Mrs. Craigie by A. Drury, with the inscription:

PEARL MARY-TERESA CRAIGIE (JOHN OLIVER HOBBS),  
NOV. 3, 1867-AUG. 13, 1906. A TRIBUTE TO HER  
MEMORY FROM HER MANY FRIENDS. 1908.

On this floor and the one above are the undergraduate study, furnished chiefly by the proceeds of undergraduate plays, and the senior and sophomore studies, and the geology department. The third floor is devoted to the department of botany, with a lecture room and laboratories for physiology and morphology, offices, and a dark room for physiological and photographic purposes, and a herbarium. In the main corridor are a series of photographs presented by the Barnard Botanical Club, illustrating types of vegetation in different parts of the world. The bronze tablet in the physiological laboratory to Miss Emily L. Gregory, the first woman professor to teach at Barnard, is the gift of the Club. The fourth floor contains part of the zoölogical laboratories and the rooms devoted to experimental psychology.

Connecting with Milbank on the west, and similar in size and design to Brinckerhoff, is **Fiske Hall** (erected 1897. The gift of Mrs. Josiah M. Fiske. Architects: Lamb & Rich). On the ground floor are the lecture rooms and offices of the English department; on the second, the physics department, with a lecture room, a photographic dark room, and laboratories in physics. The history department occupies lecture rooms on the third floor. The fourth floor contains the chemical laboratories, including a large laboratory for elementary work, a room for qualitative and quantitative analysis, a general organic laboratory and one for special work, a balance room, store room, and offices for the instructors. A reference library for the use of the students is kept in one of the offices, and includes the important journals as well as the necessary books. In the basement are an

electrical laboratory, the lunch rooms for students and faculty, and the kitchens.

At the lower end of the quadrangle on 116th Street is **Brooks Hall** (122 ft. x 43 ft. x 100 ft. Erected 1906. Named in honor of the Rev. Arthur Brooks. Architect: Charles A. Rich). This building was opened in September, 1907. An anonymous donor gave \$150,000 toward the cost, and the remainder was furnished by the College. When completed, it will have wings extending toward the north, enclosing a small terrace. The entrance is on the campus under a colonnade, two stories high, which runs across the north side of the building. The hallway leads, on the right, to the cloak-room and office, on the left, past three small parlors to the large drawing-room, the general assembly room of the residents. Over the fireplace hangs an oil painting of Miss Emily L. Gregory, professor of botany from 1889 to 1897, painted by Henry R. Rittenberg, the gift of Dr. Henry Kraemer of Philadelphia. Engravings after portraits by Reynolds and Hoppner hang on the walls of this room. Folding doors open into the dining-room, a spacious room with walnut panelling and high French windows. The mezzanine floor contains the rooms of the staff, and a reading-room for the students. Above are five bedroom floors, containing ninety rooms in all, with outside exposure, lighted by electricity and heated by steam, and completely furnished. On the ninth floor is a well-equipped infirmary. The Hall is self-governing; the students select an executive committee of nine members, which carries out the regulations of the house relating to conduct and order.

**Student Activities in Barnard.** Dramatics are the most popular of the student activities at Barnard; and the well-equipped stage in Brinckerhoff Theater is in use most of the year, from the Sophomore and Junior Plays in the fall to the Freshman Vaudeville Show and the Shakespearean Undergraduate Play in the spring. Next to plays, athletics claim much attention. There are interclass basket-ball contests in the Thompson gymnasium and hockey games on the stretch of campus between Brooks Hall and Milbank quadrangle. The swimming pool at Teachers College is used by Barnard students at certain hours of the day and an annual swimming meet between the classes is held in the spring. The winners add a number of points to their record on Field Day when the four classes compete on the campus in jumping, shot-putting, hurdling, running, and tennis. The other athletic event is the Greek Games, a contest between the Sophomores and Freshmen held in the Columbia Gymnasium. At the "Games," the two classes compete in discus-throwing, torch-race, stilt-race, Greek chorus and dance, and in lyrics to the appropriate goddess of the sport. The numerous clubs at Barnard are connected with the various branches of study. There are a Deutsches Kreis, a Société Française, a Philosophy Club, and a Classical Club; the Daughters of the American Revolution flourish along with the Socialist Club and the Equal Suffrage League. There are an elective English Club for seniors and a society, started by the English Department, which meets around the fire in the Ella Weed Library two nights every month. And in connection with the literary activities are the *Barnard Bulletin*, a weekly news sheet, the *Barnard Bear*, a lit-

erary monthly, and the *Mortarboard*, the annual published by the Junior Class. There are also at Barnard eight flourishing national fraternities.

## TEACHERS COLLEGE

**HISTORICAL NOTE.** Teachers College is the professional school of education for the University and from it has recently been differentiated a technical school in the Practical Arts. Teachers College had its origin in the Industrial Education Association, formed in 1884, to give instruction in the elementary home economies and manual arts to children who were receiving no such guidance either in school or home. It was soon found that the most effective way to promote instruction in the manual arts in the public schools would be to provide adequately trained teachers. As early as 1881, President Barnard had proposed to the Trustees of Columbia College that "the science and art of education" be included in the curriculum, and in 1886 the establishment of "a teachers college on a university basis" was under consideration. These two lines of endeavor coalesced in 1887 and the New York College for the Training of Teachers was incorporated, the title being changed later to Teachers College. Professor Nicholas Murray Butler, of Columbia, was made the first president and the new College was opened at No. 9 University Place. These quarters became inadequate in 1894 and the College then moved to the present site, between Broadway and Amsterdam Avenue, on the north side of 120th Street.

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From the first there was a continuous advance in the character of the work done, professional and technical; in the demands made on the institution; and in the numbers and equipment of the student body. During Dr. Butler's administration (1890) an alliance had been entered into between Columbia University and Teachers College, whereby students of either institution might elect courses in the other and have these courses counted as fulfilling requirements for a degree or diploma, and when Columbia University came to its new site, a closer alliance was effected. Under the terms of the new alliance, which later was made to include Barnard College also, students of Columbia and Barnard were free to elect professional courses in Teachers College; students in Teachers College could elect subjects in Columbia and Barnard, and admission requirements to Teachers College were placed definitely on a par with the requirements of other colleges.

By 1912, the two lines of work which the College had fostered from the first had become so fully developed, the student body so large, and the demands upon the College so diverse, that the professional and the technical work was divided, and two schools—one of education, one of practical arts—were established, each under its own faculty. The technical work of the School of Practical Arts is described in the sections upon the Household Arts Building and the Macy Building (pp. 94, 95).

The professional aspect of the College work has developed since 1897. The enrollment of matriculated students has increased from 169 in 1897-8 to 1623 in the year 1911-12. In addition there were more than 400 registrations in the College from other faculties of the

University. Graduate students have increased from 30 in 1897 to 344 in 1911-12, of which 78 were candidates for the Ph.D. These graduates represent 186 different colleges and universities. The distribution of the appointments made from the graduates each year is a further indication of the development. These have increased from 127 in 1900 to 672 in 1911-12. Of these appointments, 110 were to colleges and universities. More than 12,000 persons, most of whom are in the teaching profession of this country, have received a year or more of professional training in the College.

The first of the buildings to be built was the **Teachers College Main Building** (169 ft. x 132 ft. x 88 ft. Erected 1894. Architect: William A. Potter). This building is on the north side of 120th Street, midway between Amsterdam Avenue and Broadway.

**DESCRIPTION.** On the first floor are located the general administration offices, the **TRUSTEES' ROOM**, social rooms for the women students, and one for the men students, an office for the representatives of the various student organizations, and a large room used for receptions and general social purposes, and for the kindergarten of the Horace Mann School.

The second floor is given to recitation and lecture rooms and to the Educational Museum, which contains permanent exhibits of materials relating to modern school appliances and to various phases of the history of education, including manuscripts, autographs, photographs, books, apparatus, and a stereopticon collection of over seven thousand slides. The room is used chiefly for special exhibits each lasting for a few weeks. The attendance on

these during each year is about five thousand. Among the recent exhibits have been: the work of the Schools of the Philippine Islands, loaned by the War Department; and an exhibit of conditions of employment by the Consumers League and the Child Labor Committee.

The Bryson Library occupies most of the third floor, and contains the most extensive collection of books and pamphlets relating to education to be found in this country, numbering over 84,000 volumes. About 225 periodicals, chiefly educational, are on file in the reading-room. Several departmental libraries also exist, the largest being a collection of 6000 volumes for the new School of Practical Arts.

The fourth floor is occupied by laboratories and class rooms devoted to physics, chemistry, botany, zoölogy, and geography. A collection of over 1600 photographic reproductions of famous buildings and works of art, hung in the corridors, class-rooms, and offices, is a notable feature of the building. In the east end of the main corridor is a memorial window to Mrs. Charlotte L. Williams.

Adjoining the Main Building on the west is **The Milbank Building** (146 ft. x 52 ft. x 88 ft. Erected 1897. The gift of Joseph Milbank. Architect: William A. Potter). This is used for purposes of general instruction, most of the four floors being occupied with recitation and lecture rooms.

DESCRIPTION. On the first floor is the MILBANK CHAPEL, a beautifully decorated room, seating about 250, in which services are held each day at noon, and in which frequent concerts and recitals are also given. The

chapel is a memorial to Jeremiah and Elizabeth Lane Milbank. A set of tubular chimes in the chapel are a memorial to Mary D. Runyan, an instructor in the kindergarten from 1896 to 1905. The Bryson Library occupies a portion of the third floor.

The north side of the central square is formed by the **Macy Manual Arts Building** (erected 1896. The gift of Mrs. Josiah Macy. Architect: William A. Potter. 146 ft. x 74 ft. x 88 ft.).

DESCRIPTION. The basement and first three floors are occupied by the School of Industrial Arts and the fourth floor by the department of fine arts. The basement also provides three large metal-working laboratories, a forge-room, a foundry, and a metal-working room. On the first floor are situated the offices of the director of technical education, a machine shop, and a wood-turning and pattern-making shop. The second floor contains the wood-working and cabinet-making shop, the silversmith and jewelry shop, the industrial arts room with equipment and illustrative collections for training teachers in the constructive activities of the elementary school in paper, wood, clay, textiles, and metal; and the book-binding room. On the third floor are the drafting room, and a full collection of geometrical models and other machine parts; the photographic dark-room, and lecture rooms and offices. The fourth floor provides three studios for the fine arts department, together with the departmental exhibition room and service rooms. Elsewhere are provided the ceramic laboratory; also in the Household Arts Building, the textile laboratory, and the library of the School of Industrial Arts. In 1912,



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the school became a department of the School of Practical Arts.

The School offered sixty-four courses in 1912, given by a staff of forty-six persons. A four-year course in academic subjects and in vocational fields is offered. A feature of the School is the series of evening technical courses in industry. These are intended for young men engaged in industrial pursuits who desire to advance themselves in their callings, or to fit themselves as trade teachers.

Adjoining the Macy Manual Arts Building on the east is the **Household Arts Building** (erected 1909. Architects: Parish & Schroeder).

**DESCRIPTION.** This building (153 ft. x 57 ft.) contains a comprehensive and fully equipped plant for research and instruction in the sciences and arts related to the household. In the basement are the housewifery and laundry laboratories, each 30 ft. x 45 ft., the latter intended for training in domestic and institutional laundry methods. On the first floor are two large lecture rooms, the Industrial Arts and Household Arts Library of six thousand volumes, and the offices of instructors in educational courses.

The department of foods and cookery occupies the entire second floor, with four cooking laboratories, a table-service laboratory, and an experimental cooking laboratory and service rooms. The third floor is devoted to the department of textiles and clothing with five laboratories for instruction in garment-making, dress-making, and millinery, a student work-room, and a departmental store. The departments of household

chemistry, physiological chemistry and nutrition are quartered on the fourth floor, as well as laboratories in household and physiological chemistry, while a research nutrition laboratory is provided on the fifth floor. The fifth floor also has three studios for household art design, and decoration and costume design, a textile laboratory for chemical and microscopic work and for dyeing, and a demonstration apartment consisting of a series of four rooms arranged like a typical city apartment.

In 1912, a course in hospital economics for graduate nurses was established, and in the same year the School was made a department of the School of Practical Arts.

On 120th Street, adjoining the Milbank Building on the west, is the **Thompson Building** (erected 1904. The gift of Mrs. Frederick F. Thompson. Architects: Parish & Schroeder). This building (110 ft. x 84 ft. x 91½ ft.) houses the various departments of hygiene and physical training. These include: (1) theoretical instruction of professional students of both sexes in educational hygiene and physical education; (2) practical instruction in physical training; (3) facilities for physical education of pupils, both boys and girls, of the Horace Mann School; for the women students of Teachers College and Barnard College and graduate women students of the University. The general purpose and spirit of this building are indicated by the inscription, on the façade, of the classic motto—"Mens Sana in Corpore Sano."

**DESCRIPTION.** On the first floor are found the reception room and office of the director of the building and the College physician; a general lecture room, students' study and social room, the recorder's room with health

records, the room for testing vision and hearing, and additional offices for officers of the department. In the entrance hall is the portrait of Mr. Thompson in marble relief by Augustus St. Gaudens: four relief panels in Caen stone by Domingo Mora, illustrating epochs in the history of physical education, and a life-sized copy in marble of the Discobolus. On the second floor are three large-sized exercise rooms, a physiological laboratory, and an anatomical laboratory and class-room. The third floor contains offices; a suite of rooms for corrective and medical gymnastics; dressing-rooms with lockers and shower baths. The main gymnasium is on the fourth floor, also exercise halls, and offices. The basement of the building contains hand-ball courts, three bowling alleys, and the power-room. At the rear of the building, under a skylight, is a swimming pool (60 ft. x 28 ft.), with shower baths and dressing-rooms.

On Amsterdam Avenue, between 120th and 121st Streets, adjoining Teachers College on the east, is **Whittier Hall** (202 ft. x 100 ft. x 130 ft. Erected 1901. Architects: Bruce Price & J. M. A. Darrach). This is the residence hall for the women students and officers of any department of the University.

**DESCRIPTION.** The structure is fireproof, ten stories in height, especially designed and constructed for students' use. Every room is well lighted, and the arrangement is such that rooms may be rented singly or in suites of two or three. The building is heated by steam and lighted by electricity. There are complete telephone and elevator services, a system of shower, needle, and tub-baths on each floor, and a steam laundry. The

public parlors and reception rooms are on the main floor. The dining-rooms and restaurant are on the ninth floor and command extensive views over the city and the East River. Adjoining Whittier Hall are the Lowell and the Emerson apartment houses, which are occupied mainly by families of the University faculty. The students in Whittier Hall are under the care of the social director of Teachers College, who lives in the Hall, and the resident nurse, a woman of training and experience, has general charge of the physical welfare of the household. About four hundred and fifty students are accommodated each year. This number is soon to be increased by including some of the apartments of Lowell and Emerson.

The **Horace Mann School** was established by Teachers College in 1887 as a school of observation and practice, but the practice teaching of the students is now done only in the Speyer School, at 94 Lawrence Street, which is also under the control of Teachers College. The Horace Mann School, consisting of a kindergarten, a seven-year elementary course, and a five-year high-school course, is still the school of observation for the students of Teachers College. Here they may see, under certain restrictions, expert teachers at work in all school subjects and in all grades. The course of study includes almost all of the subjects contained in modern schools, special attention being given in the elementary school to the industrial and fine arts. In the high school, although the primary purpose of the founders and of the present administration has never been to make of it a college preparatory school, the wishes of the parents and the students have tended



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to emphasize academic lines of study and nine tenths or more of the students, both boys and girls, enter college.

The **Horace Mann School Building** (erected in 1901. The gift of Mr. and Mrs. V. Everit Macy. Architects: Howells & Stokes, and Edgar H. Josselyn) which occupies the entire block front on the west side of Broadway between 120th and 121st Streets, is of brick and red sandstone and is in the Georgian style of architecture; its dimensions are 202 ft. x 100 ft. x 79 ft., and it contains five stories and a basement. The first and second floors are occupied by the elementary school; the third and fourth floors contain the high school, including the school library of three thousand volumes, and the fifth floor is devoted to laboratories, studios, and social rooms. The kindergarten is on the first floor of the main building of Teachers College. The auditorium, on the first and second floors, seats one thousand people, and is used not only for the chapel exercises of the School, but for many University lectures and entertainments. Especial attention is given to the physical care of the students. Upon entrance and at stated periods they receive careful examination by the College physician, and their gymnastic work is regulated accordingly. During school hours they have the use of five gymnasiums, two in the Horace Mann Building and three in the Thompson Building, and of the swimming pool, bowling alleys, and hand-ball courts of the Thompson Building. An athletic field near Van Cortlandt Park, with all conveniences for outdoor sports, has recently been bought for the School by friends and alumni (page 101). An out-of-doors class is also held throughout the school year on the roof of the new Practical Arts Building.

The **Speyer School** (erected 1902. The gift of James Speyer, a trustee of Teachers College. Architect: Edgar H. Josselyn. 70 ft. x 49½ ft. x 83 ft.) is a five-story building located at No. 94 Lawrence Street, near 129th Street, just west of Amsterdam Avenue, in the heart of a densely populated industrial district known locally as Manhattanville.

The purpose of the school is twofold: to serve as a school of demonstration and experimentation for the departments and students of Teachers College; and to offer a center for social and neighborhood work among the people of this district. A kindergarten of forty children and an elementary school of eight grades, with an average of twenty pupils to each grade, are maintained. Afternoon and evening classes for all forms of household arts work were attended last year by three hundred and fifty women and girls from the neighborhood. A play-room with supervision is maintained in the afternoon throughout the winter months after school hours with an enrollment of about four hundred, and during the summer months the roof is used as a playground. A district nurse resides in the building and ministers to the needs of the homes in the immediate community. Rooms are also used extensively for club meetings and social purposes. A school and circulating library of 3200 volumes is located in the building and is extensively used. This library, known as the Teachers College Alumni Library, was established by the Alumni of Teachers College in 1900, and has been aided each year since by an annual grant.

In the basement of the school building are the gymnasium and baths for boys and girls, and the heating and

ventilating plants; on the first floor are the principal's office, the library and reading-rooms, and the kindergarten; on the second floor, the class rooms of the first four grades of the elementary school and the school doctor's and nurse's office; on the third floor, the class rooms of the upper four grades of the elementary school, and a teachers' rest-room; on the fourth floor, the industrial arts work-room, two sewing-rooms, a kitchen and a laboratory for housewifery and cookery, and a demonstration dining-room; on the fifth floor, living apartments for the district nurse, several social workers, and a number of teachers of the elementary school; and on the roof, playground apparatus, roof-garden equipment, and one room occupied by two social workers.

The school is free, and has grown to be a factor in the lives of the people of the neighborhood through their participation in its benefits. As a school of observation, demonstration, and experimentation, it makes a continuous contribution to the departments and students of Teachers College.

**Residence Park.** Teachers College has recently acquired about twelve acres of land just north of 246th Street and west of the Albany Post-road. The land is divided into two well-marked terraces, of which the upper one is to be developed as a residential section for the teaching staff of the College and its schools. This portion of the property is exceptionally well located for the purpose, as the land lies higher than Van Cortlandt Park, which it overlooks. It is purposed to erect two apartment-buildings which will be arranged in part for housekeeping and in part for bachelor quarters, several

single houses, a number of two-family houses, and one or two four-family houses. Plans for this development are now in preparation. The lower terrace has already been made into an athletic field, including ten tennis-courts, a full-sized football field, and a quarter-mile running track. Temporary accommodations in the way of lockers, shower-baths, and toilet facilities have been provided for both young men and young women, and during the spring and fall the field is in constant use by the students of the Horace Mann School.

**Student Activities in Teachers College.** The Students' Executive Council is the centralizing and controlling body of all student activities. This Council is made up of the presidents of all organizations among the students, and meets bi-weekly for the consideration of all student affairs. Under the supervision of this Council as such, two large subscription dances are given during each year, a Harvest Home Festival in October, and a reception to new students immediately after registration. Under its supervision tea is served daily throughout the year in the Students' Social Room, for all members of the College. The students' organizations are of two kinds: departmental clubs, eight in number, such as the Secondary Education, Arts and Crafts, and Physical Education Clubs; and general organizations, made up of students from all departments of the College, such as the Young Men's and the Young Women's Christian Associations, the Dramatic, Basket Ball, and Mandolin Clubs. Of the Southern, Western, New England, and Cosmopolitan Clubs, which are now University organizations, the three last-named had their inception at Teachers College, and

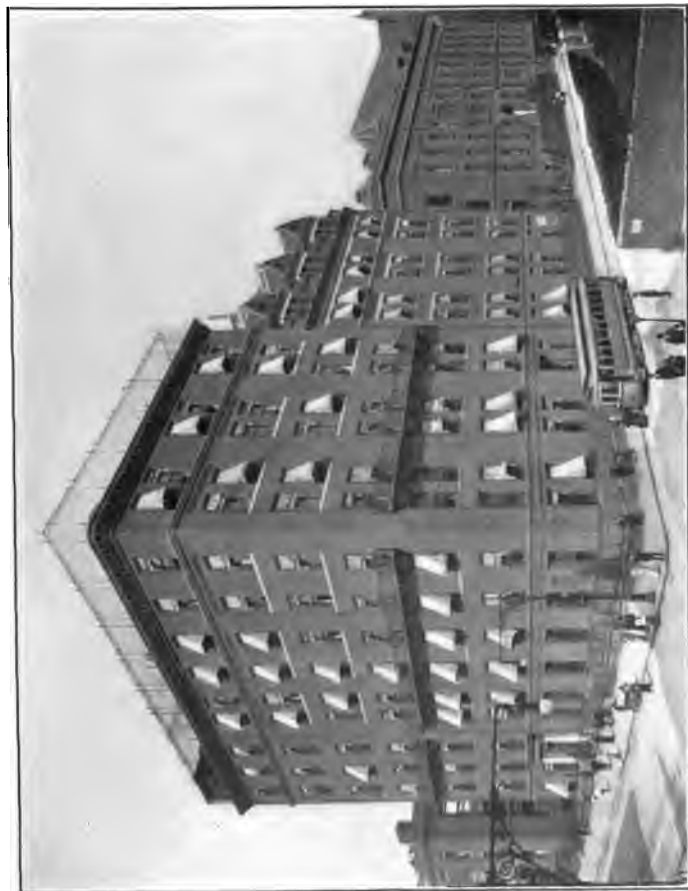
are still largely composed of Teachers College students. A stated event of the spring is the play given conjointly by the six sororities of the College for the benefit of the fund for sending delegates to the annual college conference held in June at Silver Bay, Lake George, by the National Young Women's Christian Association. Whittier Hall, the women's residence hall, has its own association, and gives several house entertainments during the year, including small monthly dances.

## COLLEGE OF PHYSICIANS AND SURGEONS

(Tenth Avenue and 59th Street)

**HISTORICAL NOTE.** King's College, the colonial predecessor of Columbia University, established in 1767 the second American school of medicine, and conferred in 1770 the first American degree of doctor of medicine in course. Its inspiration came largely from graduates of the University of Edinburgh and it was modelled closely on the medical schools of the old world. It was temporarily closed by the Revolutionary War and subsequently reopened, but was discontinued in 1813, and the College of Physicians and Surgeons, established independently in 1807, was its virtual successor. In 1860, the School became the medical department of Columbia College, and, in 1891, this nominal union became a complete merger. The requirements for admission, which originally consisted of a knowledge of the Latin language and "the necessary branches of natural philosophy," now comprise a two years' course of college study. Its own course, leading to the degree of doctor of medicine, began with the required attendance during a few winter months on one set of lectures from each of the School's six professors, which was repeated during the next year. This was gradually increased by the extension of the college year

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and the addition of other requirements. In 1888, a third year, and, in 1894, a fourth year of required study were added. The first and second years are devoted chiefly to the basal medical sciences, such as anatomy, physiology, organic, physical, and physiological chemistry, pathology, bacteriology, and pharmacology, while the study of physical diagnosis, medicine, surgery, and obstetrics is begun. During the third year, pathology, diagnosis, therapeutics, and various branches of practical medicine and surgery are studied both didactically and clinically. The fourth year is spent almost wholly in hospitals and dispensaries. Since 1769 the degree of doctor of medicine has been conferred upon 7599 men. During the present year (1912), the students number 376.

Beginning in 1877 with the pathological laboratory, extensive laboratories for teaching and research have been gradually introduced into all the scientific departments. Hospital instruction began with the establishment of the New York Hospital in 1791, which was founded at the suggestion of Dr. Samuel Bard, one of the first professors in the School, for purposes of education as well as treatment, and now includes most of the numerous hospitals of the city. In 1911, an alliance was effected between the University and the Presbyterian Hospital by which the professional work of the hospital came under the controlling influence of the University. Two most important auxiliaries of the School are the Vanderbilt Clinic, in which the annual visits of patients number more than 155,000; and the Sloane Hospital for Women, in which there are nearly 2000 obstetrical and many gynecological cases annually, and in which each student is obliged to attend patients

for a period of seven weeks during his fourth year. An increasing amount of post-graduate instruction is now being offered.

**DESCRIPTION.** The present site of the college comprises the western part of the city block bounded on the south by West 59th Street, on the north by West 60th Street, and on the west by Amsterdam (Tenth) Avenue. It was occupied in 1887, and now contains an irregular group of connected buildings of brick and terra cotta, most of which have already been outgrown. These may best be described as the South Building, the Middle Building, the North Building, the Institute of Anatomy, the Vanderbilt Clinic, and the Sloane Hospital.

The **South Building** (erected 1886. The gift of William H. Vanderbilt. Architect: W. Wheeler Smith) is 141 ft. x 43½ ft. x 87½ ft. At the right of the main entrance on West 59th Street are the administrative offices and the faculty room. The latter contains portraits of several of the former professors, including Samuel Bard by John Vanderlyn, John Watts, John B. Beck by Augusta Dudley, Alexander H. Stevens, and John G. Curtis by W. T. Smedley. There are also busts of Professors Samuel L. Mitchill and David Hosack. At the left of the entrance are the **STUDENTS' REFERENCE LIBRARY**, containing 1200 volumes, the periodical room, and the students' reading-room. In the latter are two memorial tablets, one to commemorate fourteen named students of the college who "died of pestilential disease while serving in the public hospitals of New York," and the other in memory of Drs. J. B. Gibbs, G. W. Lindheim, and H. A. Young, graduates of the college, who "died

in the discharge of duty during the war with Spain, 1898-1899." There are also portraits of two former presidents of the college, John A. Smith and Thomas Cock by Frederick W. Herring, and Joseph Moran, president of the Alumni Association, 1868, by William O. Stone. At the rear of the entrance hall is a bronze bust of William H. Vanderbilt by J. Q. A. Ward. A door at the left opens into a covered passage-way which leads to the Vanderbilt Clinic and the Sloane Hospital. The basement, which is common to the three buildings, contains the heating, ventilating, and lighting machinery, a cold-storage plant for the preservation of anatomical material, a room containing osteological preparations for the use of students, a machine shop, animal rooms, and store-rooms. On the first floor a double staircase at the rear of the entrance hall leads to the second story.

On the second floor is a large and well-equipped physiological laboratory which is used for courses of instruction, a laboratory for surgical research, a general recitation room, and several private offices for professors. At its east end the corridor opens into the anatomical museum, the doorway forming the main entrance to the Institute of Anatomy. The corridors of the second and third floors open into the large amphitheatre of the Middle Building. The third floor is devoted to the department of physiology. It has an unusually good equipment for the investigation of the physical problems of physiology. There are five laboratories for research; a library containing the John G. Curtis Collection of books, periodicals, and pamphlets, given by Dr. Curtis (of the Class of 1870), now maintained largely by the George G. Wheelock Fund, given by Dr. Wheelock (of the Class

of 1864); the Swift Physiological Cabinet, endowed by James T. Swift, Esq., in memory of Foster Swift, M.D. (of the Class of 1857), and containing a very full collection of apparatus of precision; several private rooms for the officers of the department; two dark-rooms for optical or photographic work; and an outfit for the manufacture and repair of apparatus. One room is equipped with elaborate electrical apparatus which is used for the investigation of the electrical phenomena of living substance. This room also constitutes a "heart station," being connected by wires with the Vanderbilt Clinic so that the string galvanometers of the department may be used for making electrocardiographic records from patients at the clinic. The fourth floor is occupied mainly by a large dissecting room which is lighted by skylights. In small glass cases along the walls are mounted fine preparations of the separate bones of the human body, the gift of Dr. Robert F. Weir (of the Class of 1859). At the west end, a room is set apart for operative surgery, where students are taught on the cadaver some of the fundamentals of surgical procedure. Opening off from the main room of this floor are rooms for the officers of the department, prosectors' rooms, and a macerating room.

The **Middle Building** (erected 1886. The gift of William H. Vanderbilt. Architect: W. Wheeler Smith) (56 ft. x 54½ ft. x 76½ ft.) forms a structural link between the North and South Buildings. At its north and south ends are the main stairways, which are connected with the corridors of the North and South Buildings. The Middle Building is devoted chiefly to the

two large lecture rooms of the college, one occupying the first floor and the other, an amphitheater, on the second and third floors, having a seating capacity of 450. They are reached from the main stairways. In the amphitheater are hung several paintings, a copy of Hamann's portrait of Vesalius, and portraits of former professors of the institution: namely, Edward Delafield, Willard Parker by Daniel Huntington, Alonzo Clark by Daniel Huntington, John C. Dalton, from whom the chief professorship of physiology is named, by Eastman Johnson, Henry B. Sands by Morgan Rhees, Thomas T. Sabine, J. W. McLane by Daniel Huntington, and T. Mitchell Prudden by Sargeant Kendall. Beneath the amphitheater, on the second floor a corridor connects the two main stairways. Opening from this are the library of the department of biological chemistry and a small laboratory for work in physical chemistry. An easterly addition, reached from the northern end of this corridor, contains the laboratory for surgical research, which is maintained by an anonymous fund. It is used for instruction, surgical research on animals, and the treatment of animals requiring surgical attention. It contains offices operating rooms, and, on the floor below, an animal hospital. The laboratory is under the care of a regular corps of surgeons and a trained nurse. The public may send here sick animals and they will be cared for with the same consideration for their comfort and the same surgical skill as are patients in hospitals for human beings.

**The North Building** (Erected 1886. Architect: W. Wheeler Smith) 94 ft. x  $43\frac{1}{2}$  ft. x  $87\frac{1}{2}$  ft. faces West 60th Street, but has here only a small private entrance.

It is usually entered from the corridor of the second floor of the Middle Building. The first floor contains a laboratory for the instruction of undergraduate students in organic and physiological chemistry. Separate rooms are used respectively for the storage of chemicals, and for work with the ultramicroscope and the centrifuging of liquids. On the second floor four laboratories are employed for post-graduate instruction and research in biological chemistry. One of these is specially fitted for exact experimentation in metabolism. Store-rooms and a private office adjoin these. The third floor contains two laboratories, of pharmacology and pharmacy respectively, a small chemical laboratory, a balance room, a store-room, and a mechanic's shop. In cases along the wall of the corridor is a museum collection of crude drugs. The fourth floor contains the laboratories of advanced clinical pathology, used for instruction and research, and the offices of the members of the staff of that department. These laboratories connect with the extensive laboratories of pathology which cover the fourth floor of the Vanderbilt Clinic, and are usually entered from that building. They include numerous private laboratories and operating rooms, mainly for research, private offices, two animal rooms, a technician's room for the preparation of microscopic specimens, a laboratory for the investigation of pathological problems by physiological methods, and a room devoted to the growing of animal tissues outside the animal body. A portion of the collection of pathological specimens is stored here. A LIBRARY is maintained by the Alumni Association of the College of Physicians and Surgeons.

The north stairway gives access on the fifth floor on

the south to a laboratory for research in surgical pathology, which constitutes the uppermost floor of the Middle Building. At the west is a small laboratory used in the preparation of histological specimens. A door to the north opens directly into a large laboratory which is used for the instruction of students in histology, neuro-anatomy, and pathology. This room contains the greater portion of the collection of pathological specimens which constitute the pathological museum, many of which date from the earlier history of the college. They are used for teaching purposes. An amphitheater allows demonstrative lectures to be given to students. To the west, on the same floor, and occupying the fifth floor of the Vanderbilt Clinic, are the laboratories of bacteriology. These consist of one large laboratory which is used for investigation by the members of the staff and others, the office and private laboratory of the director of the department, and two rooms used, respectively, for the preparation of toxins and antitoxins, and for the preparation of culture media and the sterilization of apparatus. The department contains an extensive collection of cultures of living bacteria, including particularly pathogenic and closely related non-pathogenic species. A large laboratory containing a small amphitheater is used jointly for instruction in bacteriology and clinical pathology.

The **Institute of Anatomy** was erected in 1896, ( $88\frac{1}{2}$  ft. x 45 ft. x  $87\frac{1}{2}$  ft. Architect: W. Wheeler Smith) with funds provided by the gift of Messrs. Cornelius, William K., Frederick W., and George W. Vanderbilt. The whole building is occupied by the department of anatomy.

It is continuous with and lies to the east of the South Building, but is entered only from the basement and the second and fourth floors of that building. The basement is used mainly for storage. There is a large tank-room in which are kept the wet preparations used to illustrate the lectures in anatomy, together with a part of the comparative collection of the department. This room is also used for the making of plaster casts and the manufacture of the wax-plates which are used in the Born method of preparing enlarged models of embryonic structures. In addition the basement contains a corrosion room and the large human reference osteological collection. On the first floor are study collections comprising classified series of anatomical preparations, both human and comparative, mounted skeletons, casts, and corrosions, which on account of their delicacy require protection from heat and light. A gallery contains the comparative osteological collection.

The second floor, which communicates directly with the corridor of the South Building, is allotted to the anatomical museum. Here are exhibited series of selected preparations illustrative of the comparative anatomy and evolution of the heart, lungs, alimentary canal, and genito-urinary tract. The specimens are mounted with a view of securing to the student the freest possible access to the material consistent with its preservation, and are furnished with framed descriptions, labelled photographs, and explanatory notes. The tables, rotary stands, and accessories were provided by the gift of Mr. E. H. Harkness.

On the third floor is the laboratory of morphology, used by the staff of the department, and open to properly

qualified students for advanced work and investigation. It is admirably equipped with instruments and apparatus for the various technical procedures of anatomy and is well supplied with microscopes and projectoscopes for embryological and histological study. A small enclosure at the south end serves as the office of the director of the department, and contains his library, which is at the service of advanced workers. Here also are kept the Columbia collection of embryos, and a large series of lantern slides, largely illustrative of material in the possession of the department. The staff includes an artist who devotes his entire time to the work of illustration.

The fourth floor forms an annex to the main dissecting room of the South Building and contains two small amphitheatres used in demonstrations to sections of a class. There is also a small room assigned to the instructors in neuro-anatomy.

The **Vanderbilt Clinic** (the gift of Messrs. Cornelius, William K., Frederick W., and George W. Vanderbilt. Architect: W. Wheeler Smith) occupies the plot on the southeast corner of West 60th Street and Amsterdam Avenue, and, as originally constructed in 1886, consisted of three main stories, now known as the West Building (92½ ft. x 60 ft. x 73 ft.). This building was soon found insufficient, and in 1896 a larger structure of five stories, surmounted by a clock tower, now called the East Building (106 ft. x 60½ ft. x 107 ft.) was added to it directly to the east. The two buildings form an organic whole, and may be described as one. On entering the building at the main entrance on Amsterdam Avenue, the visitor is admitted directly into a large waiting room

in which the patients are classified and distributed. A corridor passes to a second waiting room on the east. The first room on the right of the entrance forms a large and commodious apothecary's department, from which are dispensed the drugs that are used by the patients. Farther along on the right are the offices of the receiving clerks, where are stored approximately 100,000 classified cards giving the histories and records of patients. Beyond these offices are the rooms used by the orthopaedic department. To the left of the entrance are a series of rooms devoted to surgery and general medicine. There is an elaborately equipped operating room, and all appliances for operations on ambulant patients, and a battery of Cooper-Hewitt lamps furnishes illumination for instantaneous photographs of patients. There are also electric ovens for the treatment of rheumatic joints. Special rooms are devoted to the instruction of students, to diseases of children, to the use of visiting nurses, and to the social-service work of the clinic. The work of the clinic is greatly aided by an association of women, called the Vanderbilt Clinic Auxiliary, which maintains a trained social-service worker and a corps of nurses for the purpose of visiting the patients in their homes and offering advice and assistance in the continuation of their treatment. The door to the right leads into a covered passage-way which extends to the Sloane Hospital and the South Building of the college.

In the second story of this passage-way, there are rooms for the library, the offices, and the laboratory of the professor of the practice of medicine, besides a well equipped laboratory used by the department of clinical pathology, and in which twenty students can make the

routine chemical and microscopic examinations necessary in the study of disease.

In the basement of the Clinic, a room is devoted to a very complete hydrotherapeutic apparatus, with all facilities for giving the various baths that are used in this method of treatment. Another room contains a variety of mechanical appliances used in mechanotherapy; this form of treatment is very useful in breaking up adhesions and rendering flexible stiff joints that have been in plaster casts or are rheumatic. A large number of patients exercise here every morning. In other rooms a milk station is maintained by the Department of Health of the City. Milk may be obtained here for the use of the patients of the Clinic, and for cases outside the Clinic in co-operation with the Charity Organization Society.

The second and third floors contain two central waiting rooms and an amphitheater capable of seating 400 students, with entrances on both floors. Around these central rooms are smaller rooms for special work. On the second floor two rooms are devoted to instruction in gynecology, and five rooms to instruction in diseases of the nose and throat. The latter department has an unusual equipment, the gift of Professor George M. Lefferts, (of the Class of 1870), and called the LEFFERTS MUSEUM. A bronze tablet on the wall memorializes the gift, which consists of many engravings and photographs of the masters of laryngology, a beautiful series of lecture charts, numerous plaster casts and models illustrating diseases of the larynx, and a very complete collection of laryngological instruments. Three rooms are devoted to the treatment of nervous diseases, a well equipped

laboratory for the scientific investigation of nervous diseases by means of elaborate registering apparatus, and three large rooms for the department of ophthalmology, including a dark-room where an entire class of students can examine a series of patients with the aid of ophthalmoscopes. Of the special rooms on the third floor, three are devoted to gynecology and three to the diseases of the skin, while another room is elaborately equipped as a laboratory for the study of the pathology of lesions of the skin. Two rooms are used by nurses for the preparation of bandages. Three rooms are devoted to the diseases of the ear, three to genito-urinary diseases, one to dental work, and two to class instruction.

The fourth and fifth floors of the building are reserved for the laboratories of the departments of pathology, bacteriology, and clinical pathology, and are described in the account of the North Building. The roof of the Clinic is equipped as an outdoor camp, for the treatment of patients suffering from tuberculosis. It has a capacity of one hundred patients, a kitchen and a dining room, which may also be used as a solarium. A public school for tuberculous children is here conducted, under the auspices of the Board of Education of the city. The work of the camp is greatly aided by the Clinic Auxiliary.

The Sloane Maternity Hospital, the immediate predecessor of the **Sloane Hospital for Women** (145 ft. x 98 ft. x 87 ft. Erected 1886-1911. The gift of Mr. and Mrs. William D. Sloane. Architect: W. Wheeler Smith), was inaugurated in 1887, and was at that time the most complete obstetrical hospital anywhere existing. It

contained twenty-eight beds for patients, besides accommodations for the medical staff, nurses, and servants. The service increased rapidly and in 1897 a six-story addition was erected, providing seventy-two additional beds for patients. In 1910 a building was erected for gynecological purposes, and the name of the hospital was changed to the Sloane Hospital for Women. In 1911 three stories were added to accommodate the nurses. The building is situated on the northeast corner of 59th Street and Amsterdam Avenue and, as it stands to-day (1912), is seven stories in height and surrounds a small court. Its southern portion is used for the obstetrical service, and its northern portion for the gynecological. It contains 173 beds for adults and 100 cribs for infants. Besides being a charitable and private hospital, it furnishes practical instruction in obstetrics and gynecology to the students of the College, to nurses, and to doctors of medicine. Each student of the College during his fourth year spends three weeks in the obstetrical division, and four weeks in the gynecological division, residing in the hospital a part of the time. Undergraduate nurses may receive instruction for a period of three months. The hospital provides a four-months' post-graduate course for nurses, and moreover offers opportunities for medical graduates to become obstetricians and gynecologists.

The main entrance is on West 59th Street. In the entrance hall a bronze tablet has been erected by the Trustees of the University, "in recognition of the wise liberality of William Douglas Sloane and Emily Thorn Vanderbilt Sloane." At the right is an obstetrical operating amphitheater which will accommodate one hundred students, with various accessory rooms. Along

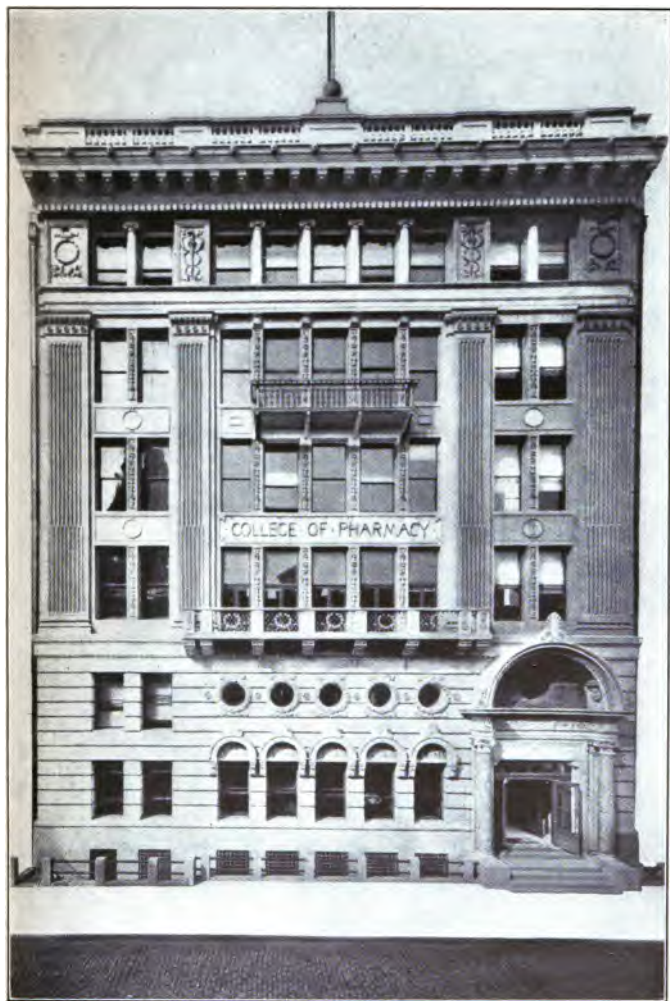
the main corridor are the offices of administration, reception and examining rooms, a record room containing the histories of the 28,000 obstetrical cases of the hospital, a staff room where hangs a portrait of William D. Sloane by Eastman Johnson, quarters for the resident physicians and students, the superintendent's office, and the laboratory. This floor is connected by a covered passage-way with the Vanderbilt Clinic and the South Building of the College. In the basement are the reception rooms and lockers for the ward patients, the drug-room, the laundry store-rooms, the servants' dining-room, and the heating and ventilating plants. On the second floor are obstetrical wards, private obstetrical and gynecological rooms, a private operating room, and nurseries. There is an office for a social worker, who finds places in which needy women may stay before they enter the hospital, and obtains remunerative situations for them afterwards. The third and fourth floors are divided between obstetrical wards and nurseries, dormitories to be used by women before entering the wards, a ward dining-room, and private rooms for both obstetrical and gynecological cases. Separate quarters are reserved for septic and other special cases. On the fifth floor are private gynecological rooms and living accommodations for nurses; and on the sixth floor the four wards of the gynecological division, accommodations for nurses, the main kitchen, and dining-rooms. The seventh floor is devoted partly to servants' quarters and partly to the gynecological service, with an operating amphitheater and etherizing, preparation, sterilizing, recovery, and dressing-rooms. A room is set apart for the treatment of special conditions. It contains the most recent model of a fulgurating machine for obtaining

an electrical current of high frequency, which is used for relieving pain and in the treatment of certain inoperable cases. The greater portion of the building is covered with a flat roof which is arranged as a roof garden and solarium and is divided into sections for private patients, ward patients, and nurses respectively. Over the northern portion of the building an eighth floor contains the superintendent's quarters, above which is a roof garden for the members of the medical staff.

## COLLEGE OF PHARMACY

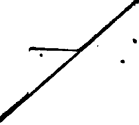
(No. 115 West 68th Street)

**HISTORICAL NOTE.** The number of pharmacists practicing in New York City at the beginning of the last century was small and among them very few had received any special training for their work, nor did the city at that time afford any means of obtaining such training. In order to supply this imperative need, several of the leading pharmacists, among whom were John D. Keese, Henry H. Schieffelin, and Constantine Adamson, took the first steps in March, 1829, for the founding of a College of Pharmacy. In 1831, a charter was obtained and the Rev. Henry H. Schieffelin was elected president; Dr. John Torrey and Dr. Stephen Brown having previously been appointed to the professorships of pharmacy and materia medica respectively. In the following year courses of lectures in chemistry were also given, and somewhat later courses in practical botany. During its first twenty-five years, the number of students was small, but shortly after the renewal of the charter of the College, in 1856, three men became connected with it, Dr. E. R. Squibb, Dr. Charles Rice, and Professor Charles F. Chandler, to whose effort and devotion its subsequent success is largely due. In 1871, the Alumni Association was formed, and in 1873 the property No. 209-211 East



COLLEGE OF PHARMACY

U of M



23d Street was purchased. In the latter year, thirty-three students were graduated; in 1879 the number had increased to sixty-five, and in 1889 to one hundred and six. In 1894, the College removed to its present site and ten years later it became affiliated with Columbia University. Courses are now given leading to the degrees of pharmaceutical chemist and doctor of pharmacy.

In addition to giving instruction, the College has been active in its efforts to secure needed reforms, such as the establishment and revision of an authoritative pharmacopœia, a statutory requirement for the qualification of pharmacists, and the enactment of a pure-food law.

**DESCRIPTION.** The present building, situated on the northerly side of 68th Street, between Broadway and Columbus Avenue, was erected in 1894, and is 75 ft. x 100 ft. in size. It is built of light gray stone, buff brick, and terra cotta, in the Italian Renaissance style, six stories in height, of fire-proof construction.

The first floor, a few steps above the street level, contains the office of the College, the LIBRARY, a large collection of books on pharmacy and the allied sciences; the Canby herbarium, the dispensing laboratory, and the Trustees' Room. The second and third floors are devoted to the lecture room, seating five hundred students, and accommodation for the preparation for lectures, with special rooms for quizzes. On the fourth floor are located the departments of botany and materia medica; also the museum of materia medica, the microscopical laboratory with provision for one hundred students working at microscopes at one time; also special rooms for the accommodation of the professor of the department and his assistants.

On the fifth floor is the pharmaceutical laboratory, which will accommodate four hundred and fifty students, one hundred and fifty working simultaneously, each student having his own individual closet and drawer for apparatus. The floors are of asphalt, perfectly water-tight, and the drainage has been designed with special reference to pharmaceutical manipulations, on a practical scale.

On the sixth floor is located the chemical laboratory, with accommodations for a like number of students. Also the stock room for supplies, a scale room, and offices for the director and his assistants. The building as a whole will accommodate one thousand students.

## CAMP COLUMBIA

Camp Columbia, the headquarters of the Summer School of Surveying, is situated in the town of Morris, Litchfield County, Connecticut, and is reached from New York by the New York, New Haven & Hartford Railroad. [Ticket to Bantam on the Litchfield Branch, ninety-nine miles; drive three miles along the shore of Lake Bantam to the Camp.]

**The Camp**, which is situated on the crest of the hill about one half mile south of the Lake, consists of about four hundred and eighty (480) acres of land, and fourteen buildings. These include three dormitories with rooms for 181 men, a dining-hall, kitchen, ice-house, pump-house, water-tower and tank, bath-house, administration building, Y. M. C. A. building, instrument-house, observatory, and storehouse. Other buildings are used in connection with the farm operations conducted on the property.

The field practice in surveying for students in the Schools of Mines, Engineering, and Chemistry has been conducted in the vicinity of Bantam Lake since 1883, and the topography, climate, and local surroundings have proved so satisfactory and so admirably adapted in every way to the requirements of a Summer School of Surveying, and the wisdom of concentrating the in-

struction in the practice of surveying into the summer months has been so clearly demonstrated by the experience of twenty years, that the Trustees of the University have purchased additional adjoining farms and established a permanent Camp. In 1908, the Summer School of Geodesy was transferred from Osterville, on Cape Cod, to Camp Columbia, and since that time the instruction given by the Departments of Astronomy and Civil Engineering in Geodesy and Surveying has been so co-ordinated that a combined hydrographic and geodetic survey of Bantam Lake is made by each succeeding third-year class of Civil Engineers.

No better location for a surveying school could be found. The topography is rough and varied. The ground about the Camp is from 900 to 1200 feet above the sea. The atmosphere is clear and dry. The days during July and August are moderately warm but never sultry, and the nights are always cool. Mount Tom (1325 feet high) is less than three miles away and in clear view; Mount Prospect (1365 feet high) is five miles north; Bantam Lake, one half mile north of the Camp, is nearly three miles long and from one half to two thirds of a mile wide, and twenty-five feet deep. Its surface elevation is 896 feet above the sea. Litchfield, a beautiful village and well-known summer resort, is the nearest town of any considerable size. Washington is about six miles west; Watertown eight miles, and Waterbury fourteen miles southeast.

Camp Columbia is open for surveying practice from about June 1st to September 15th each year. Approximately 300 students attend for a period of five or six weeks; the maximum attendance at any part

of the session is about 180 students. Instruction is given in all branches of plane surveying including farm surveying, city surveying, mine surveying, topographic surveying, hydrographic surveying, and railroad surveying, as well as in geodesy and practical astronomy.

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## DIRECTORY OF FRATERNITIES

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ALPHA DELTA PHI, 614 West 113 St. Founded 1832. Columbia Chapter established 1836. Re-established 1881. Tel. 5714 Morning.

ALPHA SIGMA PHI, 359 West 117 St. Founded 1845. Lambda Chapter established 1910.

BETA THETA PI, 429 West 117 St. Founded 1839. Alpha Alpha Chapter established 1881. Tel. 5599 Morning.

DELTA KAPPA EPSILON, 608 West 113 St. Founded 1844. Gamma Beta Chapter established 1874. Tel. 1166 Morning.

DELTA TAU DELTA, 616 West 113 St. Founded 1859. Gamma Epsilon Chapter established 1882. Re-established 1902. Tel. 5756 Morning.

DELTA UPSILON, 558 West 113 St. Founded 1834. Columbia Chapter established 1885. Tel. 3424 Morning.

DELTA PHI, 612 West 116 St. Founded 1832. Delta Chapter established 1842. Tel. 4842 Morning.

DELTA PSI, Riverside Drive and 116 St. Founded 1847. Alpha Chapter established 1847. Tel. 2352 Morning.

PI LAMBDA PHI, Founded 1895. Columbia Chapter established 1896. Re-established 1910.

PHI GAMMA DELTA, 604 West 114 St. Founded 1848. Omega Chapter established 1866. Tel. 264 Morning.

PHI DELTA THETA, 565 West 113 St. Founded 1848. New York Delta Chapter established 1884. Tel. 6401 Morning.

PHI EPSILON PI, 421 West 121 St. Founded 1888. Beta Beta Chapter established 1905. Tel. 6769 Morning.

PHI KAPPA SIGMA, 536 West 114 St. Founded 1850. Iota Chapter established 1855. Tel. 6772 Morning.

PHI KAPPA PSI, 627 West 113 St. Founded 1852. New York Gamma Chapter established 1872. Tel. 7232 Morning.

PHI SIGMA KAPPA, 550 West 114 St. Founded 1873. Theta Chapter established 1897. Tel. 550 Morning.

PSI UPSILON, 627 West 115 St. Founded 1833. Lambda Chapter established 1842. Tel. 729 Morning.

SIGMA ALPHA EPSILON, 531 West 113 St. Founded 1856. New York Mu Chapter established 1895. Tel. 8133 Morning.

SIGMA NU, 540 West 113 St. Founded 1869. Delta Gamma Chapter established 1888. Re-established 1908. Tel. 7304 Morning.

SIGMA CHI, 523 West 113 St. Founded 1855. Nu Nu Chapter established 1894. Tel. 2806 Morning.

THETA DELTA CHI, 619 West 113 St. Founded 1848. Rho Deuteron Chapter established 1883. Tel. 2611 Morning.

THETA XI, 618 West 113 St. Founded 1864. Epsilon Chapter established 1898. Tel. 3197 Morning.

ZETA BETA TAU, 403 West 119 St. Founded 1898. Columbia Chapter established 1903.

ZETA PSI, 431 West 117 St. Founded 1846. Alpha Chapter established 1878. Tel. 1543 Morning.

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